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JMC

1922

JMC

SEED CATALOGUE



**THE J. CHAS. McCULLOUGH SEED CO.
SEEDSMEN**

A MODERN SEED STORE

228-230-232 E. Fourth St.

North Side, near Sycamore Street

PRIVATE EXCHANGE, LONG DISTANCE PHONE,
MAIN 5640.

Connecting all Departments

CINCINNATI, O.

SUGGESTIONS FOR ORDERING

All varieties of Flower and Vegetable seeds are numbered. Our order sheet is arranged to save you the time and trouble of writing the names of the seeds in full.

If you send your order early the benefit will be mutual. You will have your seed on hand when the planting season arrives and it will enable us to get it out before the "please rush" time arrives.

REMITTANCES can be made by any of the following methods: Post Office Money Order, Express Co. Money Order, Registered Letter, New York or Chicago Exchange or for small amounts postage stamps. **PERSONAL CHECKS** on local banks cost us extra for collection but will be accepted if the customer desires.

ALL PRICES on VEGETABLE SEEDS are net, but on PACKETS, OZS. and $\frac{1}{4}$ LBS. WE PREPAY POSTAGE.

SEEDS BY MAIL, Etc.

PARCEL POST CHARGES have greatly lowered the cost of sending packages by mail. Most customers are no doubt familiar with charges from Cincinnati and that it depends on the weight of the package and the zone. We have estimated as a general average the following rates and these are to be added to prices of bulk seeds if they be sent by mail. Lb., 5c.; pt., 5c; qt., 10c. Larger size packages, especially in the 1st, 2d and 3d zones will not average quite these prices.

DOMESTIC PARCEL POST RATES

		First Pound (over 8 oz.)	Each Pound rates 1 lb.) or fraction.
First Zone within	50 Miles.....	5c	1c
Second "	50 to 150 Miles.....	5c	1c
Third "	150 to 300 "	6c	2c
Fourth "	300 to 600 "	7c	4c
Fifth "	600 to 1000 "	8c	6c
Sixth "	1000 to 1400 "	9c	8c
Seventh "	1400 to 1800 "	11c	10c
Eighth "	all over 1800 Miles.....	12c	12c

WEIGHTS OF BULK SEEDS in measured quantities are approximately as follows:—

Quarts of Peas and Beans approximately 30 ounces.

Corn, Sugar, approximately, quarts 24 ounces, pints 12 ounces.

Corn, Early and Field, quarts 28 ounces, pints 14 ounces.

Onion Sets, quarts 16 and pints 8 ounces.

The above tables will enable customers to remit the proper amount of postage.

EXPRESS AND FREIGHT CHARGES on large quantities are cheaper than Parcel Post. We charge no carriage to depots or the Express Company offices, nor do we charge for boxes, packing or for small muslin bags.

When seamless cotton bags are required they must be remitted for; 30c each.

WE DO NOT SHIP ANY GOODS C. O. D. Our prices are plainly printed and if we cannot supply at the prices quoted, we will promptly notify customers. There is no reasonable doubt that vegetable seeds will be supplied at these prices, but we reserve the right to advance or decline with the market.

ABOUT WARRANTING SEEDS

We have often been asked if we "guarantee or warrant our Seeds." We beg to state plainly, we do not, for the reason that practical experience has assured us of the fact that crops may fail, no matter how fresh or pure the seed sown may be. We trust that our customers will fully realize that it is to our interest to send none but the best quality of seeds.

To secure success, however, it is necessary that the customer should do his part well, or our good seeds will be ruined. With the best of management and good seeds there will be an occasional unaccountable failure. The best of gardeners sometimes fail, and try again with the same seeds with good results.

 We give no warranty, expressed or implied, as to description, quality, productiveness or any other matter of any seeds, bulbs, or plants we send out and we will not be in any way responsible for the crop.

THE J. CHAS. McCULLOUGH SEED CO.

TO OUR FRIENDS AND CUSTOMERS.



MAIN OFFICE, WAREHOUSE AND SEED
CLEANING PLANT
FIFTH, LOCK AND EGGLESTON AVE.

JMC



GARDEN SEED AND SALES DEPARTMENT
228-230-232 EAST FOURTH ST.

BUYERS OF SEEDS will find it worth while to devote some of their time to this catalogue. In it you will find reliable information as to varieties of seeds, bulbs, plants, etc. We hope it will be of use to all who are interested in making their vegetable gardens profitable and flower beds and lawns more attractive.

Our seeds are grown on contract by competent growers in the sections best suited to the different varieties. From our active and practical experience of 50 years in the seed business and all its branches you will find us as competent to handle the business as any one in the trade. If in need of further information do not hesitate to write us; it is to our interest to serve you. Please remember that if you order early the benefit will be mutual. We think page 96 will interest you.

Sincerely yours,

THE J. CHAS. McCULLOUGH SEED CO.

KITCHEN GARDEN SEEDING TABLE

Name of Vegetables	Seeds Required for		Distance for Plants		Ready for use from seed in about
	100 ft. Row	One Acre	In Rows	Rows Apart	
Artichoke.....	1 oz.	6 oz.	2 ft.	3 to 4 ft.	8 mos.
Asparagus.....	2½ oz.	4 lbs.	1 to 2 ft.	3 to 4 ft.	3 to 4 yrs.
Beans, Bush.....	1 pt.	1½ bush.	6 in.	2 ft.	45 to 65 days
" Pole.....	1 pt.	10 to 12 qts.	3 ft.	4 ft.	65 to 90 "
Beet, Table.....	2 oz.	5 lbs.	4 in.	1 to 1½ ft.	60 to 75 "
" Mangel.....	1 oz.	5 lbs.	8 in.	2 to 2½ ft.	150 "
Broccoli.....	½ oz.	2 oz.	2 ft.	2½ ft.	120 "
Brussels Sprouts.....	½ oz.	2 oz.	2 ft.	2 ft.	100 to 120 "
Cabbage, early.....	¼ oz.	6 oz.	18 in.	2½ ft.	100 to 120 "
" late.....	½ oz.	6 oz.	2½ ft.	3 ft.	125 to 180 "
Carrot.....	1 oz.	3 to 4 lbs.	4 in.	1½ to 2 ft.	75 to 120 "
Cauliflower.....	½ oz.	½ lb.	2 ft.	2½ ft.	100 to 135 "
Celery.....	½ oz.	2 oz.	6 in.	3 to 4 ft.	125 to 150 "
Corn, Salad.....	3 oz.		4 in.	12 to 18 in.	65 "
" Sweet.....	½ pt. 100 hills.	8 qts.	3 ft.		65 to 100 "
Cress.....	½ oz.	2 to 3 lbs.	1 in.	1 ft.	30 "
Cucumber.....	1 oz.	2 lbs.	4 ft.	4 ft.	60 to 85 "
Egg Plant.....	½ oz.	4 oz.	2½ ft.	3 ft.	150 to 160 "
Endive.....	1 oz.	4 lbs.	1 ft.	1½ ft.	50 to 75 "
Kale.....	½ oz.	4 lbs.	2 ft.	2½ ft.	100 to 120 "
Kohlrabi.....	½ oz.	4 lbs.	6 in.	1½ ft.	75 "
Leek.....	1 oz.	4 lbs.	6 in.	1½ ft.	120 to 160 "
Lettuce.....	½ oz.	3 lbs.	1 ft.	1½ ft.	65 to 100 "
Melons, Musk.....	½ oz.	2 to 3 lbs.	4 ft.	5 ft.	115 to 140 "
" Water.....	1 oz.	4 lbs.	8 ft.	8 ft.	120 to 140 "
Okra.....	2 oz.	10 lbs.	1½ ft.	2 ft.	90 to 125 "
Onion.....	1 oz.	5 to 6 lbs.	3 in.	1 ft.	135 to 150 "
Parsley.....	½ oz.	3 to 5 lbs.	4 in.	1½ ft.	100 "
Parsnip.....	½ oz.	3 to 5 lbs.	6 in.	1½ ft.	125 to 150 "
Peas.....	1 to 2 pts.	2 bu.	2 in.	2 to 4 ft.	50 to 75 "
Pepper.....	½ oz.	½ lb.	2 ft.	2 ft.	140 to 150 "
Potato, cut.....		7 to 10 bu.	1 ft.	2½ ft.	80 to 140 "
Pumpkin.....	1 pkt.	4 lbs.	8 ft.	8 ft.	100 to 120 "
Radish.....	1 oz.	8 to 10 lbs.	2 to 4 in.	1½ ft.	20 to 50 "
Salsify.....	1 oz.	8 lbs.	6 in.	1½ ft.	125 to 150 "
Spinach.....	1 oz.	10 lbs.	4 in.	15 in.	30 to 60 "
Squash, Bush.....		4 lbs.	3 ft.	4 ft.	60 to 75 "
" Late.....		4 lbs.	7 ft.	8 ft.	100 to 125 "
Tomato.....		2 to 4 oz.	4 ft.	4 ft.	100 to 125 "
Turnip.....	½ oz.	2 lbs.	6 in.	1 ft.	60 to 75 "

N. B.—For last planting of beans, sweet corn, kohlrabi, peas and radishes, or even tomatoes, take the earliest varieties just the same as are used for first planting.

Late sowings of salsify are intended to remain undisturbed over winter. Roots from these sowings will, the next year, attain a size double that usually seen.



The J. Chas. McCullough Seed Co.'s “EMERALD” LAWN GRASS SEED

PRICES { $\frac{1}{2}$ LB., 30c; 1 LB., 50c;
5 LBS., \$2.25; BUS. (16 LBS.), \$6.00.

“EMERALD” LAWN SEED is superior to Kentucky blue grass or any other mixture for this section. We have for 50 years made a study of lawns and our experiments have shown us that for quick and permanent results our “Emerald” Lawn Grass seed has never been excelled. We know that  Emerald Lawn seed will give satisfaction wherever a fine velvety turf is wanted, except in dense shade.

QUANTITIES.

FOR NEW LAWNS—1 qt. sows 200 sq. ft. (10 by 20). 1 lb. sows 250 sq. ft. (12 by 20). An acre requires 5 to 6 bushels (80 to 100 lbs.)

FOR OLD LAWNS—It will take about half as much seed as for a new lawn, depending on how thick a stand of grass there is, usually requiring 2 to 3 bushels per acre for renovating.

MAKING LAWNS.

PREPARATION—The soil should be deeply spaded or plowed, thoroughly pulverized and raked fine and smooth, removing all roots, stones, clods, trash, etc. If not properly graded it should be done now, allowing for water to drain off and not stand in pools. If the lawn is made of clay from recent excavations, it should be covered with 3 or 4 inches of good rich garden soil before the seed is sown.

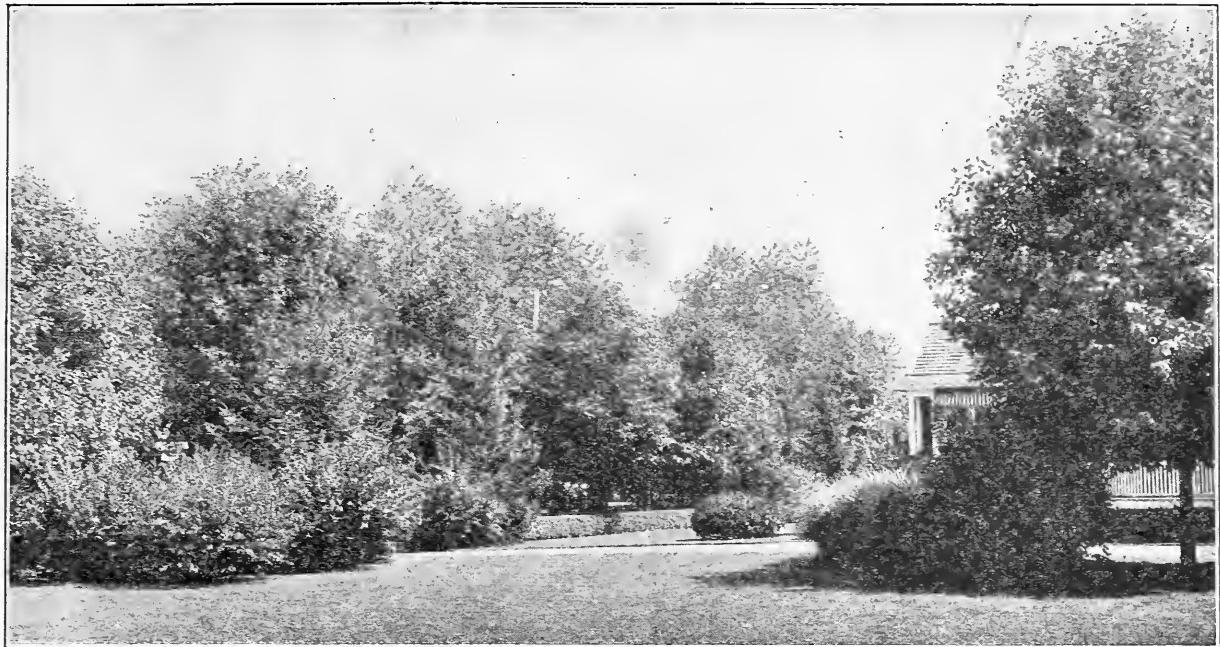
FERTILIZERS—Pulverized Sheep manure is thoroughly satisfactory for lawns. Unless stable manure is well decomposed it contains weed seeds. Sheep manure does not therefore is preferable. Use 5 to 10 pounds to 200 sq. ft. (according to soil) working it well into the soil at time of sowing seed.

SOWING—Seed can be sown in the spring from February to May or in the fall from August to October. To get it evenly distributed half the seed should be sown one way then cross and sow balance at right angles. The seed should be covered by raking or harrowing and then well rolled.

MOWING—Cut the young grass for the first time when it is about $1\frac{1}{2}$ to 2 inches high with either a sharp scythe or a free running machine set high. It is most important to keep grass cut quite short from the very start, otherwise it will grow long and thin, instead of tillering out and covering the ground.

Never allow the grass, whether it be young or old to grow long and ragged. Two inches may be considered the extreme length to which it should attain at any time of the year. It is not advisable to keep grass too closely cut during hot and dry weather.

RENOVATING—If the grass is thin it is not necessary in most cases to plow up the entire lawn and reseed, though if it is choked with weeds and there is very little grass left it is decidedly preferable to plow up or spade up the entire lawn and seed over. Unless this is the case, however, raking over roughly with a sharp tooth rake and sowing more seed, will improve the lawn wonderfully. Grass usually dies out from lack of plant food, hence it is a good plan to apply sheep manure at the rate of 400 to 600 lbs. per acre, applied in March, after the growing season has started.



GRASS SEEDS PRESCRIBED FOR ALL SOILS AND PURPOSES

For Lawns, Shaded Lawns, Tennis Courts, Golf Courses, Bowling Greens, Cricket Grounds, Football, Baseball, and Polo Fields.

We supply in this vicinity nearly all of the cemeteries, public parks, golf courses and other places where considerable quantities of grass seed are used and are prepared at all times to furnish the highest quality seeds for all purposes.

We put up special mixtures for all purposes and will be very glad to estimate on any special mixture that may be required.

We offer the following splendid mixtures which can be relied on to be the very highest quality.

JMC "SHADY NOOK" LAWN GRASS.—Composed of short Perennial evergreen grasses, naturally adapted to damp shady situations or between buildings. Per lb., 55c; bu. (16 lbs.), \$6.50.

JMC "DRY SHADE" LAWN GRASS—The grasses of which this is composed are short of fair texture, particularly suited for shade under trees having surface roots, such as Maples, Poplars, etc. The plant food and moisture are so effectually exhausted that the top soil is left very barren and dry and liberal amounts of Sheep Manure should be applied in spring and fall. Per lb., 50c; bu. (16 lbs.), \$6.00.

JMC HILL SIDE OR TERRACE LAWN GRASS—For high dry situations where moisture and poor soil are conditions to be contended with. It is composed of grasses that will succeed fairly well under these conditions and produces short green turf of fair quality. Per lb., 50c; bu. (16 lbs.), \$6.00.

GOLF COURSE MIXTURES—It is most important that the best seeds be used for this and in proper proportions to produce desired results. New golf courses require somewhat different mixtures from that for old courses because it is imperative that quick sod should be obtained and one which will be lasting and produce good, green, smooth turf. From our long experience with grasses, we are better posted on the requirements for the average golf course than most of the so called specialists. The fact that we are among the largest importers of grass seeds and one of the largest cleaners of domestic sorts, enables us to offer at very reasonable figures.

JMC PUTTING GREEN MIXTURE—Composed of short, fine grasses which make smooth, even putting greens. Should be sown 100 lbs. per acre on new grounds or for renovating, the amount should be according to stand of grass. Per 100 lbs., \$37.00.

FAIR GREEN MIXTURE (For old courses.)—Composed of the best and most permanent grasses which produce short, green, thick turf, not in clumps but of spreading habit. It is the best mixture that is offered in this country.

Per 100 lbs., \$35.00. Requires 30 to 40 lbs. per acre according to the stand of grass already on the ground.

JMC FAIR GREEN MIXTURE (For new courses.)—This is composed of grasses which will afford a quick, serviceable turf in a short time. We have sold it for some courses which were sown as late as April 15th and obtained such a good stand that the club was opened and the ground played on July 4th. It will give the best results in after years. The course if used too soon after seed is sown will not be in the finest condition but sufficiently good to satisfy players. Per 100 lbs., \$35.00.

For a new course, it requires 4 to 6 bus. per acre according to results desired. If for quick results, thick seedings are best.

PRICE LIST

 We give no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds, bulbs, or plants we send out and we will not be in any way responsible for the crop.

THE J. CHAS. McCULLOUGH SEED CO.

Page		Pkg.	Oz.	1/4Lb.	Lb.	Page		Pkg.	Oz.	1/4Lb.	Lb.							
ARTICHOKE																		
7	Large Globe.....	\$0 10	\$0 30	....	....	14	Mammoth Prize Red Mangel.....	\$0 05	\$0 10	\$0 20	\$0 60					
7	Jerusalem.....	....	....	....	....	14	Golden Tankard Mangel.....	5	10	20	60			
ASPARAGUS																		
7	Palmetto.....	5	10	\$0 25	\$0 80	14	Yellow Globe Mangel.....	5	10	20	60							
7	Conovers Colossal.....	5	10	25	80	14	Silesian Sugar.....	5	10	20	60							
BEANS, DWARF GREEN POD																		
8	Improved Early Red Valentine.....	\$0 10	\$0 15	\$0 25	\$0 45	\$1 75	14	Lanes Imperial Sugar.....	5	10	20	60						
8	Stringless Green Pod.....	10	20	30	50	1 80	15	White Cape.....	10	50	1 25	....					
8	Giant Stringless.....	10	20	30	50	1 90	15	Purple Cape.....	10	50	1 25	....					
8	Dwarf Horticultural.....	10	20	30	50	1 90	BROCCOLI											
8	Full Measure.....	10	20	30	50	1 90	15	White Cape.....	10	50	1 25	....					
8	Refugee Late or 1000 to 1.....	10	20	30	50	1 90	15	Purple Cape.....	10	50	1 25	....					
9	Bountiful.....	10	20	30	50	1 90	BRUSSELS SPROUTS											
9	Long Yellow Six Weeks.....	10	20	30	50	1 90	15	Perfection.....	10	35	90	....					
9	Round Yellow Six Weeks.....	10	20	30	50	1 90	CABBAGE, FIRST EARLY SORTS											
9	Extra Early Refugee.....	10	20	30	50	1 90	15	Early Jersey Wakefield.....	5	20	75	....					
9	Tennessee Green Pod.....	10	20	30	50	1 90	15	Early Winningstadt.....	5	20	75	....					
BEANS, DWARF FOR SHELLING																		
9	Dwarf White Navy.....	....	10	20	35	1 20	15	Charleston Wakefield.....	5	20	75	....					
9	Dwarf White Marrow.....	....	10	20	40	1 40	16	Copenhagen Market.....	10	35	1 20	....					
9	Dwarf White Kidney.....	....	10	25	40	1 50	16	Early Spring.....	5	20	75	....					
9	Dwarf Red Kidney.....	10	25	45	1 75	CABBAGE, SECOND EARLY SORTS											
BEANS, WAX PODDED SORTS																		
10	Wardwells Kidney Wax.....	10	20	30	50	1 90	16	Louisville Drumhead.....	5	20	75	....					
10	Dwarf Black Wax.....	10	20	30	50	1 90	16	Glory of Enkhuizen.....	5	20	75	....					
10	Curries Rust Proof Wax.....	10	20	30	50	1 90	16	All Seasons.....	5	20	1 00	....					
10	Golden Wax.....	10	20	30	50	1 90	16	Early Dwarf Flat Dutch.....	5	20	90	....					
10	Davis White Wax.....	10	20	30	50	1 90	16	Hendersons Early Summer.....	5	20	90	....					
10	Michigan White Wax.....	10	20	30	50	1 90	16	Allhead Early.....	5	20	90	....					
BEANS, POLE OR CORN FIELD																		
11	Improved Kentucky Wonder.....	10	20	30	50	1 90	16	Volga.....	5	20	1 00	....					
11	White Kentucky Wonder.....	10	20	30	50	1 90	CABBAGE, LATE											
11	Cut Short or Corn Hill.....	10	20	35	60	2 00	17	Late Flat Dutch.....	5	20	75	....					
11	Horticultural Pole or Cranberry.....	10	20	30	50	1 85	17	Large Late Drumhead.....	5	20	75	....					
11	White Creaseback.....	10	20	30	50	1 90	17	Danish Ballhead.....	5	20	75	....					
11	Lazy Wife.....	10	20	35	60	2 00	17	Surehead.....	5	20	75	....					
11	Ohio Pole Wax.....	10	20	30	50	1 90	17	Amer. Drumhead Savoy.....	5	20	75	....					
11	Golden Cluster Wax.....	10	20	30	50	1 90	17	Red.....	5	25	90	....					
BEANS, LIMA, DWARF																		
12	Fordhook Bush Lima.....	10	20	35	60	2 20	17	Pe-Tsai-Chinese.....	5	25	90	....					
12	Burpees Bush Lima.....	10	20	35	60	2 20	CARROTS											
12	Hendersons Bush Lima.....	10	20	30	50	1 90	18	French Forcing.....	5	15	40	1 25						
BEANS, LIMA, POLE																		
12	Fords Mammoth Podded.....	10	20	30	60	2 20	18	Early Scarlet Horn.....	5	10	30	1 00						
12	King of Garden.....	10	20	30	60	2 20	18	Oxheart.....	5	10	30	1 00						
BEETS, TABLE																		
13	Crosbys Improved Egyptian.....	\$0 05	\$0 10	\$0 35	\$1 00		18	Chantenay.....	5	10	30	1 00						
13	Detroit Dark Red.....	5	10	30	1 00		18	Half Long Danvers.....	5	10	30	1 00						
13	Early Eclipse.....	5	10	30	1 00		18	Nantes Half Long Scarlet.....	5	10	30	1 00						
13	Norwood Blood Turnip.....	5	10	30	1 00		18	Improved Long Orange.....	5	10	30	1 00						
13	Extra Early Egyptian.....	5	10	30	1 00		18	Large White Belgian.....	5	10	30	1 00						
13	Extra Early Bassano.....	5	10	30	1 00		CAULIFLOWER											
13	Edmonds Early Blood Turnip.....	5	10	30	1 00		19	Earliest Snowball.....	25	2 75	....	....				
14	Improved Early Blood Turnip.....	5	10	30	1 00		19	Early Dwarf Erfurt.....	20	2 75	....	....				
14	Crimson Globe.....	5	15	35	1 25		19	Danish Giant.....	20	2 75	....	....				
14	Dewings Blood Turnip.....	5	10	30	1 00		CELERY											
14	Long Smooth Blood.....	5	10	30	1 00		19	Improved White Plume.....	5	20	80	....					
14	Swiss Chard.....	5	10	30	1 00		19	Golden Self Blanching.....	5	35	1 25	....					
CHICORY																		
20	Witloff or French Endive.....	10	20	60	1 00		19	Giant Pascal.....	5	20	75	....					

PRICE LIST—Continued

PRICE LIST—Continued

Page		Pkg.	Oz.	1/4 Lb.	Lb.	Page		Pkg.	Oz.	1/4 Lb.	Lb.	
ONION												
33	Large Red Wethersfield....	\$0 05	\$0 20	\$0 60	\$2 00	41	Cincinnati Market.....	\$0 05	\$0 10	\$0 30	\$1 00	
33	Yellow Flat Danvers.....	5	20	50	1 50	41	Long Scarlet Short Top.....	5	10	30	1 00	
33	Yellow Dutch.....	5	15	40	1 50	41	Chartier.....	5	10	30	1 00	
33	Yellow Globe Danvers.....	5	20	60	1 75	41	Long White Icicle.....	5	10	30	1 00	
33	Ohio Yellow Globe.....	5	20	60	2 00	41	White Naples.....	5	10	30	1 00	
33	Australian Brown.....	5	15	40	1 50	41	White Strasburg.....	5	10	30	1 00	
34	Prize Taker.....	5	20	65	2 00	41	Long White Vienna.....	5	10	30	1 00	
34	White Portugal or Silver Skin.....	5	20	60	2 00							
34	White Globe.....	5	25	75	2 75							
PARSLEY												
34	Champion Moss Curled....	5	10	25	.80	42	Long Black Spanish.....	5	10	30	1 00	
34	Hamburg Rooted.....	5	10	35	1 00	42	Round Black Spanish.....	5	10	30	1 00	
34	Plain Leaf.....	5	10	25	.80	42	Scarlet China Winter.....	5	10	30	1 00	
						42	Long White Spanish.....	5	10	30	1 00	
						42	White Chinese.....	5	10	30	1 00	
PARSNIPS												
35	Sugar or Hollow Crown....	5	10	25	.75							
35	Long White.....	5	10	25	.75							
PEAS, EARLY SMOOTH												
35	J. C. McC. Extra Early....	\$0 10	\$0 20	\$0 30	\$0 50	\$1 75	42	Rhubarb.....	5	20	55
35	Alaska.....	10	20	30	50	1 75						
36	New Claudit.....	10	20	30	50	1 75						
36	Petit Pois.....	10	20	30	50	1 75						
36	Tom Thumb.....	10	20	30	50	1 75						
PEAS, EARLY WRINKLED												
36	Gradus.....	10	20	30	55	1 90						
36	Thomas Laxton.....	10	20	35	55	1 90						
36	Laxtonian.....	10	20	30	50	1 75						
36	Little Marvel.....	10	20	35	60	2 00						
36	American Wonder.....	10	20	35	60	2 00						
36	Notts Excelsior.....	10	20	35	60	2 00						
36	Suttons Excelsior.....	10	20	35	60	2 00						
36	McLeans Little Gem.....	10	20	35	60	2 00						
PEAS, MEDIUM CROP VARIETIES												
37	McLeans Advancer.....	10	20	30	50	1 80						
37	Bliss Everbearing.....	10	20	30	50	1 75						
37	Daisy or Dwarf Telephone.	10	20	35	60	2 00						
PEAS, LATE												
37	Duke of Albany.....	10	20	30	55	2 00						
37	Pride of the Market.....	10	20	35	55	2 00						
37	Telephone.....	10	20	30	55	1 90						
37	Prince Edward.....	10	20	30	55	1 90						
37	Champion of England.....	10	20	30	55	1 90						
37	White Marrowfat.....	10	15	25	45	1 75						
37	Black Eye Marrow.....	10	15	25	45	1 75						
37	Melting Sugar.....	10	20	35	60	2 00						
PEANUTS												
38	Improved Virginia.....	....	10	15	25	....					
38	Spanish.....	....	10	15	25	....					
PEPPER												
38	Chinese Giant.....	\$0 10	\$0 60	\$2 00	\$.	....					
38	Large Bell or Bull Nose.....	10	40	1 25	....						
38	Ruby King.....	10	40	1 50	....						
38	Long Red Cayenne.....	10	40	1 25	....						
38	Sweet Mountain.....	10	40	1 50	....						
38	Golden Dawn.....	10	60	2 00	....						
38	Red Chilli.....	10	50	1 75	....						
38	Pimento.....	10	40	1 75	....						
PUMPKIN												
39	King of Mammoths.....	5	15	50	1 50							
39	Japanese Pie.....	5	15	45	1 50							
39	Tennessee Sweet Potato.....	5	15	45	1 50							
39	Cashaw Crookneck.....	5	15	45	1 50							
39	Large Cheese.....	5	10	25	.75							
39	Kentucky Field.....	5	10	20	.50							
39	Connecticut Field.....	5	10	25	.70							
RADISH, ROUND												
40	Early White Tip Scarlet....	5	10	30	1 00							
40	Early White Turnip.....	5	10	30	1 00							
40	Golden Globe.....	5	10	30	1 00							
40	White Stuttgart.....	5	10	30	1 00							
40	French Breakfast.....	5	10	30	1 00							
41	Early Scarlet Turnip.....	5	10	30	1 00							
41	Early Scarlet Globe.....	5	10	30	1 00							
41	Non Plus Ultra.....	5	10	30	1 00							
RADISH, LONG												
41	Cincinnati Market.....	\$0 05	\$0 10	\$0 30	\$1 00							
41	Long Scarlet Short Top.....	5	10	30	1 00							
41	Chartier.....	5	10	30	1 00							
41	Long White Icicle.....	5	10	30	1 00							
41	White Naples.....	5	10	30	1 00							
41	White Strasburg.....	5	10	30	1 00							
41	Long White Vienna.....	5	10	30	1 00							
RADISH, FALL												
42	Long Black Spanish.....	5	10	30	1 00							
42	Round Black Spanish.....	5	10	30	1 00							
42	Scarlet China Winter.....	5	10	30	1 00							
42	Long White Spanish.....	5	10	30	1 00							
42	White Chinese.....	5	10	30	1 00							
RHUBARB												
42	Linnaeus.....	5	20	55	....						
SALSIFY												
42	Mammoth Sandwich Island.	5	20	50	1 75							
SPINACH												
43	Bloomsdale Savoy.....	5	10	20	.50							
43	Round Thick Leaf.....	5	10	20	.50							
43	New Zealand.....	5	10	20	.50							
SQUASH, SUMMER												
43	Early White Bush.....	5	15	40	1 50							
43	Golden Summer Crookneck.	5	15	40	1 25							
43	Fordhook.....	5	15	50	1 50							
SQUASH, WINTER												
43	Golden Hubbard.....	5	20	50	1 65							
43	Warted Hubbard.....	5	15	50	1 50							
43	Boston Marrow.....	5	10	30	1 00							
43	Vegetable Marrow.....	5	15	40	1 35							
TOMATO, EARLY												
44	Purple King.....	5	25	75	....						
44	Sparks Earliana.....	5	25	75	....						
44	June Pink.....	5	25	75	....						
44	Chalks Early Jewel.....	5	25	75	....						
44	Dwarf Champion.....	5	30	1 00	....						
44	John Baer.....	5	35	1 25	....						
44	Bonny Best.....	5	30	1 00	....						
TOMATO, MAIN CROP												
44	Beauty.....	5	25	75	....						
44	Stone.....	5	25	75	....						
45	Ponderosa.....	10	40	1 40	....						
45	Truckers Favorite.....	5	35	1 00	....						
45	Dwarf Stone.....	5	35	1 00	....						
45	Livingston Globe.....	5	35	1 00	....						
45	Cincinnati Purple.....	5	30	1 00	....						
45	Early Detroit.....	5	25	75	....						
45	Improved Trophy.....	5	35	1 20	....						
45	Golden Queen.....	10	35	1 20	....						
45	Yellow Pear.....	10	40	1 20	....						
45	Red Pear.....	10	40	1 20	....						
45	Yellow Cherry.....	10	40	1 20	....						
TURNIP												
46	Early Purple Top Milan....	5	10	35	1 25							
46	Purple Top Strap Leaf....	5	10	25	60							
46	Purple Top Globe....	5	10	25	60							
46	Early White Flat Dutch....	5	10	25	60							
46	White Egg....	5	10	25	60							
46	Long White Cow Horn....	5	10	25	60							
46	Yellow Aberdeen....	5	10	25	60							
46	Yellow Globe....	5	10	25	60							

GENERAL LIST OF CMC SELECT VEGETABLE SEEDS

(SEE PAGES 4, 5 AND 6 FOR PRICES)

Postage paid on Seeds at pkt., oz., $\frac{1}{4}$ lb., and $\frac{1}{2}$ pt. rates. On larger quantities add 5c per pt., 5c per lb., 10c per qt. to prices.

EXPRESS RATES on Seeds, Bulbs, etc. have been considerably reduced in the last few years.

You will find some good suggestions on page 96.

ARTICHOKE

There are two distinct classes of these.

LARGE GLOBE—Grown for its undeveloped heads, which are cooked like Asparagus and sometimes used as a salad. Half an ounce produces 300 plants sufficient for a good-sized garden. Six ounces per acre.

Culture—Sow in April in rows 15 inches apart and one inch deep, thinning out to four inches and transplanting the following spring to rows 3 feet apart and 2 feet between the plants. In this climate Globe Artichokes require protection with litter or manure during the winter.

LARGE GLOBE—

JERUSALEM (Tubers)—Principally used for stock food and especially valuable for hogs, being very nutritious, and said to prevent hog cholera.

They are excellent also for table use, being boiled like potatoes, and also make excellent pickles.

Jerusalem Artichokes produce large crops and should be more extensively planted. Produce 200 to 300 bushels per acre. One quart cut, plants 60 to 75 feet, 5 to 6 bushels per acre. Plant in rows and cultivate like potatoes, afterwards dig and put in kilns or leave in ground for hogs to root out.

ASPARAGUS

Should be in every permanent garden, as it is one of the earliest and most delicious of spring vegetables. A good bed will last 15 to 20 years, and as a commercial crop properly attended to, is very profitable, an acre frequently yielding \$300.00. One ounce sows 50 ft. producing about 500 plants; 10 lbs. sow one acre. One pound produces plants enough to set one acre.

Roots can be set in February or March, or in the Fall, in October or November.

100 roots plant a bed 100 feet long and are sufficient for a medium garden. An acre requires 4000 to 7000 roots.

CULTURE—Growing Roots—Asparagus seed is sown in March or April one inch deep, in rows fifteen inches apart. Keep clean with hand tools and thin out the plants to four inches apart. When one or two years old, set in permanent beds.

Growing Asparagus—The size of asparagus depends more on high fertilization than on the variety. Well drained, rich soil, where it will not be in the way when the rest of the garden is plowed is best. Two year old roots give quickest results. Plow or dig out a trench 18 inches wide, six to ten inches deep, making the trenches six to eight feet apart. In the bottom of the furrow use four to six inches of well rotted manure, then cover with two or three inches of good soil. The roots are set twelve to fifteen inches apart and should be spread out carefully and afterwards covered with about two inches of soil. Do not cover with too much soil the first year, but the following years they can be filled up. If white asparagus is wanted the beds should be thrown higher than if wanted for green asparagus.

Do not cut asparagus too late in the Spring, as it exhausts the plant. The most practical growers on the day they stop cutting, throw down the beds with a plow, then harrow the ground, leaving the plants to grow. In November the tops are cut off and a mulch of manure put on the top of the rows, which is afterwards worked into the soil, when the beds are thrown up in the Spring.

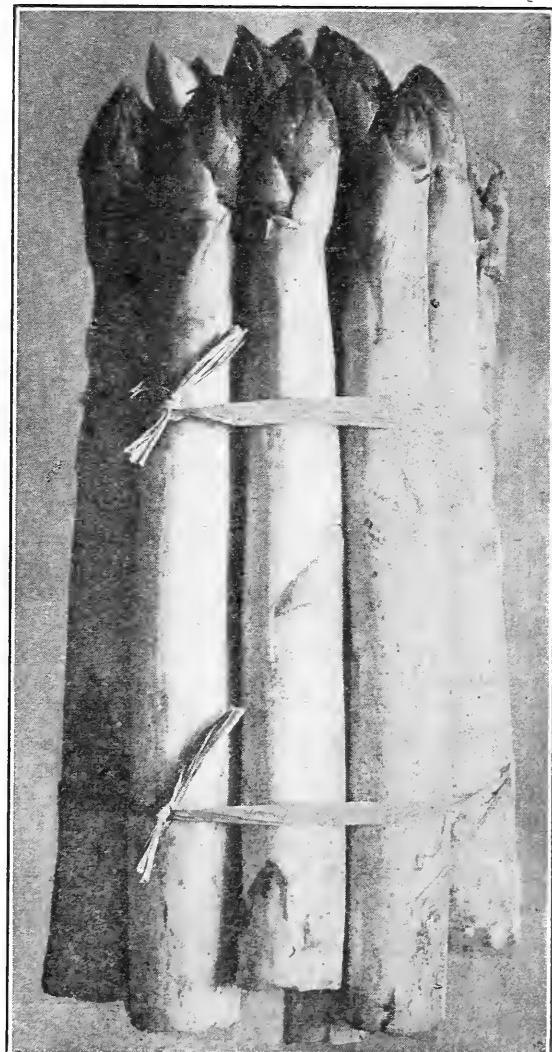
For a small garden asparagus roots can be set in double rows instead of single.

INSECT REMEDIES—For the asparagus beetle, spray with Arsenate of Lead, 3 lbs. to 50 gallons of water. Or dust with Slug Shot, air slacked Lime or dry Arsenate of Lead, while the dew is on the plant.

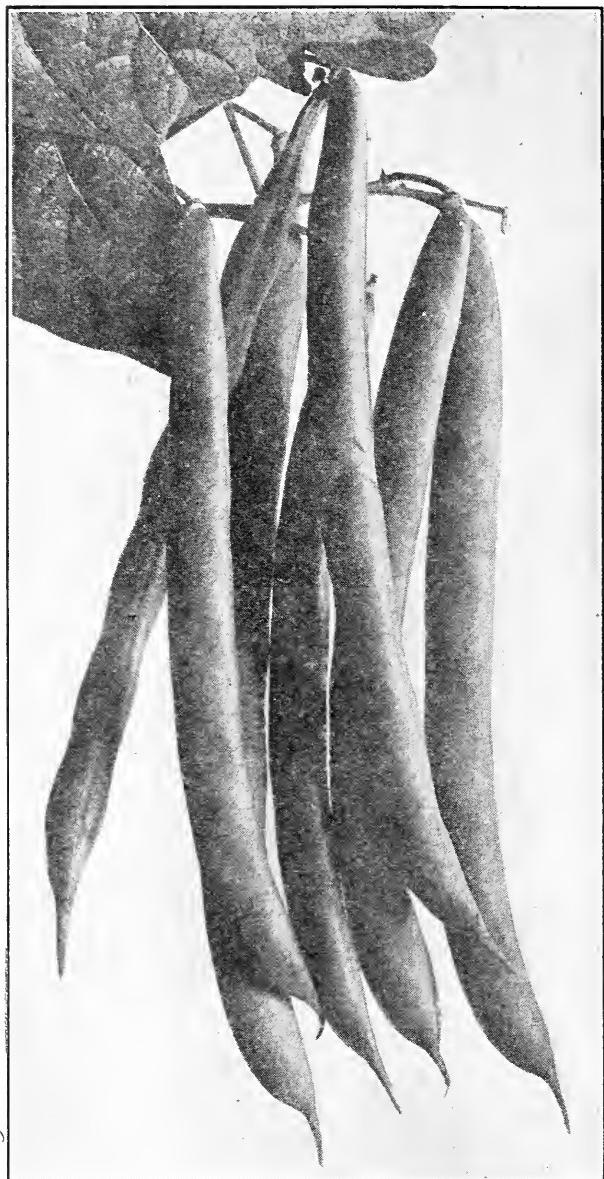
1 PALMETTO—An early maturing and very prolific variety producing an abundance of very large deep, green shoots of the best quality.

2 CONOVER'S COLOSSAL—An old favorite, well known sort, producing very large shoots; tips somewhat blunted and slightly tinged with purple.

ASPARAGUS ROOTS—Strong 2 year old roots, Palmetto, 50 roots, 85c.; per 100, \$1.50. Conover's Colossal, 50 roots, 85c.; per 100, \$1.50.



PALMETTO ASPARAGUS.



NEW STRINGLESS GREEN POD

about $4\frac{1}{2}$ inches long of medium green color, curved, cylindrical, with crease in the back, very fleshy, crisp and tender. Vines medium to large, erect with dark green leaves. Seed long, purplish pink, splashed with light buff.

3½ BLACK VALENTINE—Matures very early. Pods long, round, straight and of excellent quality.

4 NEW STRINGLESS GREEN POD—A very handsome long, cylindrical medium maturing green bean. Pods larger than those of the Valentine and straighter. Very fleshy and remain crisp and tender longer. Vines of vigorous growth and productiveness. Seeds oval, light brown in color. A very desirable sort for home gardens and largely grown for market.

5 GIANT STRINGLESS GREEN POD—A highly productive and very handsome sort. Vines vigorous, spreading. Pods large, round, averaging larger and straighter than the Stringless Green Pod, but a few days later. Seed long, slender, buff color.

6 DWARF HORTICULTURAL—Very popular in most localities, especially for market, as they are valuable both for snap beans and shelling. They become fit for use as shelled beans early, and in this condition the beans are large, easily shelled and equal to Lima Beans in quality. The vines are very productive, compact and upright in growth, with large leaves. The pods are 5 to $5\frac{1}{2}$ in. long, broad, thick, curved and have splashes of bright red on yellowish green. Seeds large, oval, plump, pale buff splashed with red.

7 FULL MEASURE—A very desirable round-podded variety with pods 6 to 7 inches long, which are solid, meaty, brittle and stringless. It is a little later than Stringless Green Pod and is a splendid Bean for home or market use.

8 REFUGEE (late or 1000 to 1). One of the best sorts for late planting and especially desirable for canning and pickling. The vines are large, spreading, very hardy, with small, smooth light green leaves. The beans are borne in great profusion, pods being about 5 to $5\frac{1}{4}$ inches long; cylindrical, slightly curved, medium green, afterwards becoming light yellow, slightly splashed with purple. The seed is long, cylindrical, light drab thickly dotted and splashed with purple.

BEANS

DWARF OR BUSH

Sometimes called String Beans, Snap Beans, etc.

(See Page 4 for Prices)

Always popular and easily grown. If planted every 2 or three weeks, commencing about April 1st, and continuing until the end of August, a supply will be kept up during the whole summer.

ONE PINT PLANTS ABOUT 80 FEET. AN ACRE REQUIRES 1 TO 1½ BUSHELS. ½ PINT PLANTED EVERY 3 WEEKS IS SUFFICIENT FOR A MEDIUM GARDEN. THEY ARE READY FOR THE TABLE FROM 40 TO 50 DAYS AFTER PLANTING.

CULTURE—To produce the best results, Beans should have a good soil and deep or thorough tillage before planting and shallow cultivation afterwards to prevent too much disturbing of the roots. Land which was planted in other crops is better than that freshly manured and sheep manure, one or two hundred pounds per acre will give excellent results. For field culture plant in rows $2\frac{1}{2}$ feet apart, dropping the beans 3 or 4 inches apart in the rows, covering about 2 inches with soil. In small gardens rows may be 18 inches apart. Up to the time of blooming, cultivate often, but never while the vines are wet, and do not disturb the roots, especially after blooming, as they will blight and the crop will be reduced. Constant picking extends bearing.

INSECT REMEDIES—For the Bean Leaf Beetle which eats holes in the leaves, or the Blister Beetle, spray with arsenate of lead, 2 lbs. to 50 gallons of water.

For the Bean Aphis or Lice, spray with diluted Kerosene Emulsion or "Black Leaf 40".

For Fungus diseases and rust, spray with Bordeaux Mixture.

Postage paid on pkts. and $\frac{1}{2}$ pts. On pints remit 5c; on quarts 10c extra if to be sent by mail.

GREEN PODDED VARIETIES

3 IMPROVED EARLIEST RED VALENTINE—A well known very early sort. Pods of medium length

about $4\frac{1}{2}$ inches long of medium green color, curved, cylindrical, with crease in the back, very fleshy, crisp and tender. Vines medium to large, erect with dark green leaves. Seed long, purplish pink, splashed with light buff.

3½ BLACK VALENTINE—Matures very early. Pods long, round, straight and of excellent quality.

4 NEW STRINGLESS GREEN POD—A very handsome long, cylindrical medium maturing green bean. Pods larger than those of the Valentine and straighter. Very fleshy and remain crisp and tender longer. Vines of vigorous growth and productiveness. Seeds oval, light brown in color. A very desirable sort for home gardens and largely grown for market.

5 GIANT STRINGLESS GREEN POD—A highly productive and very handsome sort. Vines vigorous, spreading. Pods large, round, averaging larger and straighter than the Stringless Green Pod, but a few days later. Seed long, slender, buff color.

6 DWARF HORTICULTURAL—Very popular in most localities, especially for market, as they are valuable both for snap beans and shelling. They become fit for use as shelled beans early, and in this condition the beans are large, easily shelled and equal to Lima Beans in quality. The vines are very productive, compact and upright in growth, with large leaves. The pods are 5 to $5\frac{1}{2}$ in. long, broad, thick, curved and have splashes of bright red on yellowish green. Seeds large, oval, plump, pale buff splashed with red.

7 FULL MEASURE—A very desirable round-podded variety with pods 6 to 7 inches long, which are solid, meaty, brittle and stringless. It is a little later than Stringless Green Pod and is a splendid Bean for home or market use.

8 REFUGEE (late or 1000 to 1). One of the best sorts for late planting and especially desirable for canning and pickling. The vines are large, spreading, very hardy, with small, smooth light green leaves. The beans are borne in great profusion, pods being about 5 to $5\frac{1}{4}$ inches long; cylindrical, slightly curved, medium green, afterwards becoming light yellow, slightly splashed with purple. The seed is long, cylindrical, light drab thickly dotted and splashed with purple.

PARCEL POST RATES—To calculate Zone Rates. Beans can be taken at the following rates: A pint weighs approximately 15 oz., a quart approximately 30 oz.; or packed, a pint weighs about 1 lb., a qt. about 2 lbs.

BEANS—Dwarf or Bush Cont'd

(See Page 4 for Prices)

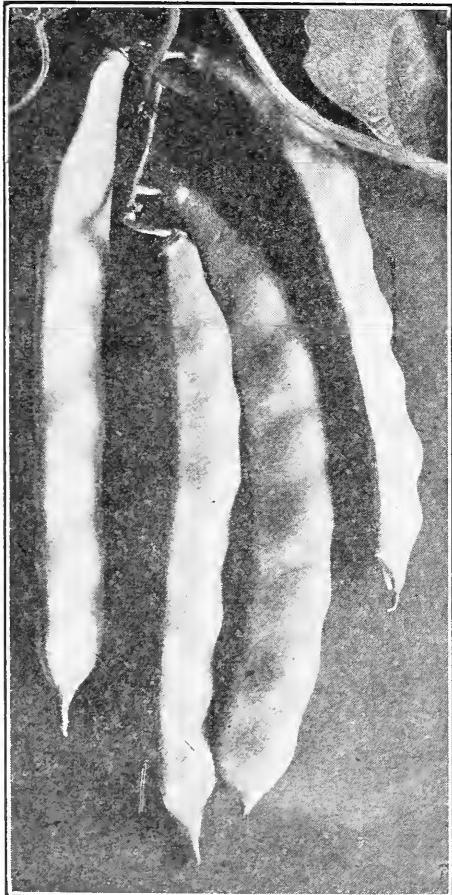
**Packets and half pints postage paid. For pints remit 5c,
for quarts 10c, if to be sent by mail.**

9 BOUNTIFUL—An Improved Long Yellow Six Weeks, in that it is earlier, very much larger and more tender. It is very hardy, extremely early, very prolific, and bears continuously for several weeks. Pods are flat, absolutely stringless, rich green, very large and handsome. The seed is yellow, long, resembling Six Weeks. For very early or very late planting is very desirable for both home garden and market.

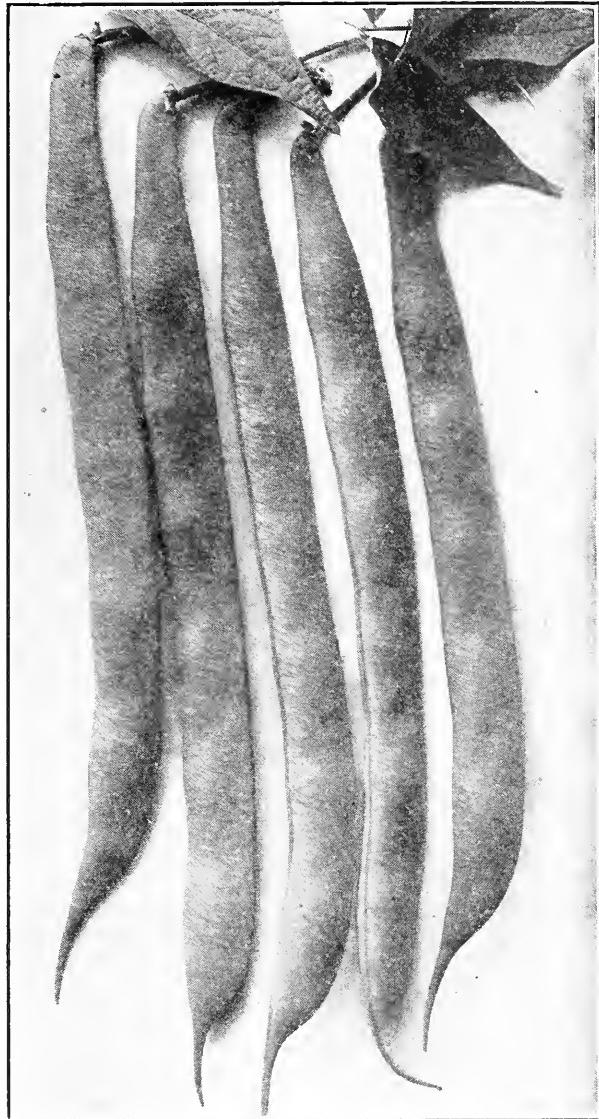
10 LONG YELLOW SIX WEEKS—A popular old variety, extra early, producing long flat pods, not stringless, hence is valuable only for earliest planting or late use for pickles. The seed is kidney shaped, large, of yellow color with red circle around the eye.

11 ROUND YELLOW SIX WEEKS—Similar to the Long Yellow Six Weeks in general appearance of vine. The pods are somewhat shorter and more stringless. The seed is medium size, round, light yellow.

12 EXTRA EARLY REFUGEE—Extremely early. Pods light green, slightly curved and about 5 inches long. Excellent for early markets, as it stands shipment well. Vines very prolific, vigorous. Seed, long, cylindrical, drab color, generally covered with purple blotches.



TENNESSEE GREEN POD



BOUNTIFUL BEANS

13 TENNESSEE GREEN POD—A dwarf, early, snap bean, which is very popular in Eastern Tennessee and Southern Kentucky. Seed is brown, a little larger than Kentucky Wonder, very hardy and more capable of withstanding inclement weather than most other sorts. The vines are large, somewhat spreading, prolific. The pods are very long (often 6 to 7 inches), flat, irregular in shape, dark vivid green color.

FORDHOOK FAVORITE—The bushes grow 18 to 20 inches high, are very vigorous, and remarkable for their prolific character. The pods measure from $5\frac{1}{2}$ to $6\frac{1}{2}$ inches long.

They are brittle, juicy and absolutely stringless at all stages of growth. The seed, being white, can be used for dried beans in the winter.

DWARF BEANS—For Shelling only

Usually profitable as a farm crop especially in Northern sections.

CULTURE—Plant in rows about $2\frac{1}{2}$ feet apart. The Navy require about $\frac{1}{2}$ bu. per acre. Other sorts about a bushel.

14 DWARF WHITE NAVY—The well known small oval white variety so largely used in all sections.

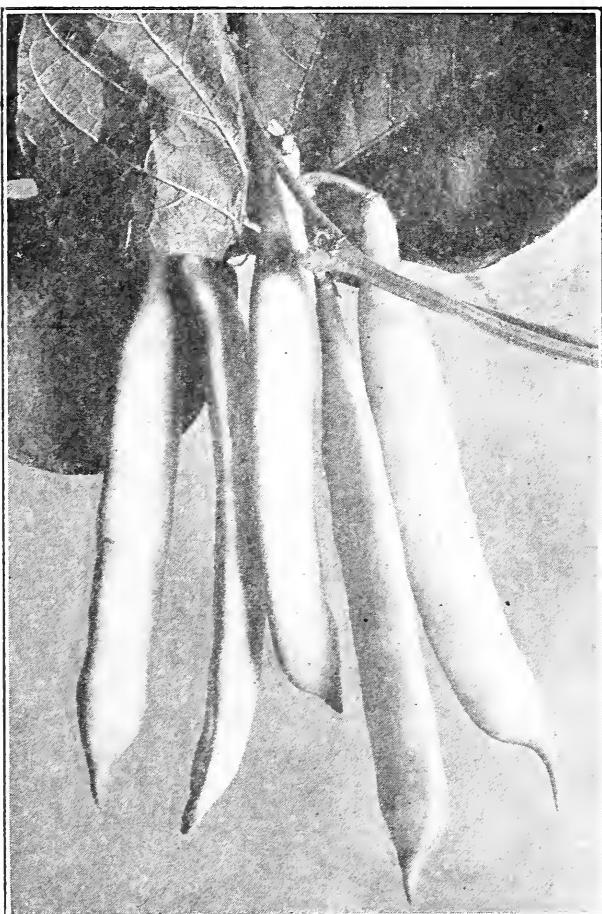
15 DWARF WHITE MARROW—Beans oval about double as large as Navy. Vines vigorous and productive.

16 DWARF WHITE KIDNEY—Large, white kidney shaped slightly flattened. Pods about six inches long, large and coarse. Beans excellent quality, either green or dry.

17 DWARF RED KIDNEY—Similar to above but dark pink color. Very salable.



DWARF BLACK WAX



DWARF GOLDEN WAX

BEANS—DWARF OR BUSH

(See Page 4 for Prices)

WAX PODDED SORTS

These find ready sale in northern markets, and are largely planted by southern growers for shipping. The pods vary from light to golden yellow color.

Pkts. and $\frac{1}{2}$ pts. mailed at prices. For pints remit 5c, and quarts 10c extra if to be sent by mail.

18 WARDWELL'S KIDNEY WAX—A variety which matures a little later than the Golden Wax, yields large crops of long, nearly straight, broad pods of light golden yellow color. They are extremely showy, consequently are ready sale and most profitable for market gardeners and an excellent variety for growing for home gardens. The seed are large, flat, kidney shape, white with dark markings about the eye.

19 DWARF BLACK WAX—One of the most popular varieties for home use and market. The pods are about $4\frac{1}{2}$ inches long, slightly curved, round, very brittle and tender. They are very fleshy, clear golden yellow color and remain tender a long time. Seed are long, round, medium size, shiny black.

20 CURRIE'S RUST PROOF WAX—A variety which is claimed to be rust proof. The vines are very vigorous, hardy, productive. Pods, light yellow, similar in shape to Golden Wax, $5\frac{1}{2}$ to 6 inches long. Matures early and is a splendid sort for market gardens and excellent for home use. The seed is long, oval, medium size, purplish black.

21 DWARF GOLDEN WAX—An early maturing variety very productive. Vines erect, compact, bearing the pods well off the ground. Pods nearly straight, broad, flat, golden yellow, very fleshy and wax like, usually $4\frac{1}{2}$ to 5 inches long. Seed medium size, oval, white blotched with purple. A good sort for home garden, either for table use or pickling.

22 DAVIS WHITE WAX—A very hardy productive variety which is popular with truckers growing for northern markets and market gardeners. The vines are very vigorous and productive. Pods straight, $6\frac{1}{2}$ to 7 inches long, light yellow, and when young are very crisp and tender. The seed is kidney shape, clear white, excellent for baking.

23 MICHIGAN WHITE WAX—A splendid variety and one of the earliest Dwarf Wax Beans. Pods are $4\frac{1}{2}$ to 5 inches, long, flat, usually very uniform in size, attractive and of light golden yellow color. An excellent variety both for home use and market gardening and canning. Seed are oval, small, clear white, somewhat resembling the white beans of commerce and are excellent for baking or boiling.

POLE OR CORNFIELD BEANS

These are very profitable and usually command good prices on the markets and are more easily and economically gathered than the Dwarf Beans. Can be planted to run up good, strong poles and some varieties are desirable to use on strong growing corn.

Culture—Pole Beans are more sensitive to cold and wet than Dwarf Varieties, hence should not be planted too early. Use poles from 6 to 8 feet long in rows 4 feet apart, placing the poles about 3 feet apart in the row. If the poles are slanted slightly to the north, the vines climb better and the pods are more easily seen. In home gardens three poles

are usually placed wigwam style and tied at the top. Around each pole plant 4 to 6 beans from 1 to 2 inches deep. When ready to run, thin to four plants and see that they all climb the same way, as if trained wrong they will not climb. If to be planted in corn, this should be done after the corn is well started and has had two or three workings.

POLE OR CORNFIELD BEANS

(See Page 4 for Prices)

24 IMPROVED KENTUCKY WONDER (or Old Homestead)—A well known variety and one of the most popular of all Pole Beans, especially in the middle sections. The vines are very vigorous, heavy and very prolific, hence not desirable to use for planting in corn. Pods are of irregular shape, bright green, very long, often reaching 9 to 10 inches. They are very tender, crisp and stringless when young, but become irregular and spongy as the beans ripen. The seed is long, oval, slightly flattened and brown or dun colored.

25 WHITE SEEDED KENTUCKY WONDER. (St. Louis Perfection White)—Similar to the above, excepting that the beans are different shape and solid white. It is early maturing, very desirable for snap beans and an excellent variety for green shelling and unsurpassed in quality as baked beans. Very profitable for market gardeners and highly prized in all sections.

26 RED SPECKLED CUT-SHORT or CORN HILL. A very popular variety in Central and Southern States especially for planting among corn. It will give a good crop without the use of poles. The vines are not as heavy as Kentucky Wonder, being medium size, vigorous, twining loosely, with dark colored leaves. Pods are 3 to 3½ inches long, straight, flat, fleshy and of good quality. As they mature the pods become light yellow tinged with red, the beans showing distinctly through the pods. The seed are small, round, light greyish white, splotched with purplish brown.



IMPROVED KENTUCKY WONDER POLE BEANS

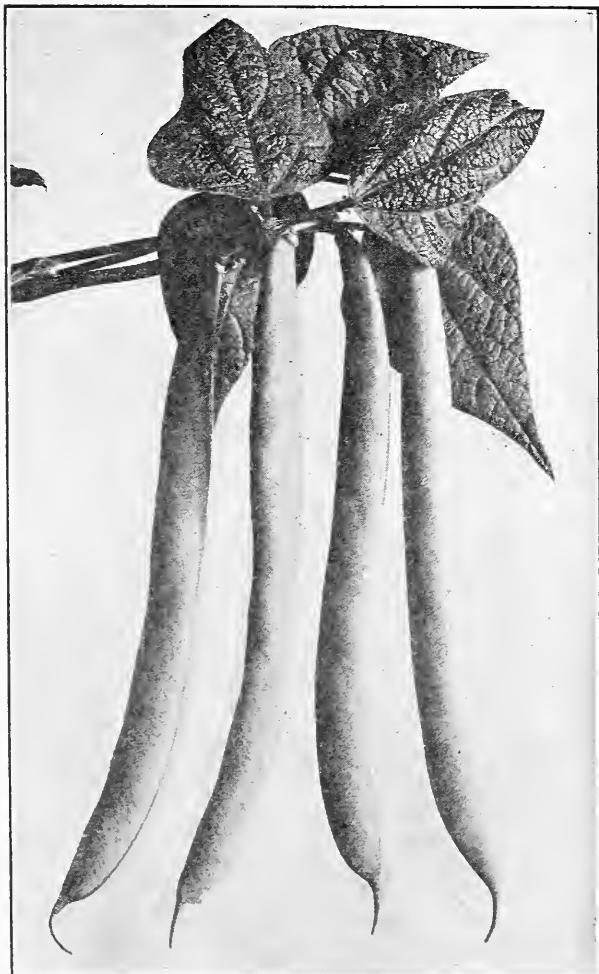
27 HORTICULTURAL POLE OR SPECKLED CRANBERRY—A very popular variety for general purposes, either as a late green shelled bean or for snaps. The pods are of medium length 4½ to 5 inches long, broad; when young pale green, gradually changing to yellowish green striped or splashed with red. Vines are moderately vigorous, with large light colored leaves. Can be grown on corn or on short poles. As shelled beans they equal in flavor Limas and are excellent to use as dry beans for boiling or baking.

28 WHITE CREASEBACK—An extremely early variety, which produces nearly all its pods at the same time. The vines are medium size and vigorous, and in rich soil wonderfully productive, bearing round, fleshy pods in clusters of from 4 to 12, which makes it extremely easy to gather. Pods are about 5 inches long, comparatively straight, attractive, light green, very fleshy, with a crease down the center. Makes excellent quality snaps and stands shipping well. Beans are small, oblong, clear white.

29 LAZY WIFE—A somewhat late maturing variety, bearing medium green pods in large clusters. Pods are 5½ to 6½ inches long, broad, thick fleshy and entirely stringless. When young they have a rich flavor which is retained until they are nearly ripe. An excellent sort for either snap green shelling, or using as dry beans. Seed white, medium size and generally round.

30 OHIO WAX POLE—Pods usually 7 inches long, solidly meaty and entirely stringless; commences to bear when scarcely higher than the bush variety, and keeps on producing until killed by frost.

31 GOLDEN CLUSTER WAX—One of the best Wax podded pole snap beans. The vines are large, strong growing, vigorous and hardy. Pods 6 to 8 inches long, borne in clusters and vary in color from golden yellow to creamy white. The seeds are medium size, flattened, oval, dull white.



WHITE CREASEBACK

LIMA BEANS

DWARF OR BUSH VARIETIES

(See Page 4 for Prices)

These are preferred in small gardens, as they can be grown like Dwarf Beans, and without the use of poles. They are not quite so prolific as the Pole Limas, but are earlier and continuous bearers throughout the season. The beans can be gathered much easier than the Pole Limas and they can be grown closer together.

CULTURE—All Lima Beans are tender and the ground should be dry and the weather warm and settled before planting. They do best in good light soil, and if not rich, an application of sheep manure or other good fertilizer will be well repaid.

Plant in drills $1\frac{1}{2}$ to 2 feet apart, dropping the beans 4 to 5 inches apart and covering about 2 inches deep. Cultivate often until they commence to flower, but only when the leaves are dry.

1 pint of Small Seeded Lima plants 100 to 125 feet and is sufficient for an ordinary garden. 1 quart of other sorts plants about the same space. For succession, make two plantings four weeks apart. Mature in 75 to 90 days from planting.

32 **FORDHOOK BUSH LIMA**—A very vigorous and erect growing variety, bearing its pods well above the ground in large clusters. Pods are medium green, about 5 inches long and contain 4 to 5 large thick beans of exceptionally fine quality. We consider this one of the best of the large seeded kinds.

33 **BURPEE'S BUSH LIMA**—A bush form of the Large White Lima type. Plants are somewhat dwarf but very productive. Pods are medium green, broad, containing 3 to 4 very large flat beans of the best quality. Seed large flat, white, slightly greenish tinge.

34 **HENDERSON'S BUSH LIMA**—An exceedingly productive variety of dwarf habit. Commences bearing very early and continues to grow and set pods until stopped by frost. The vines are without runners, somewhat dwarf, very productive. Beans small, white and most excellent quality either for green shelling or as dry beans.

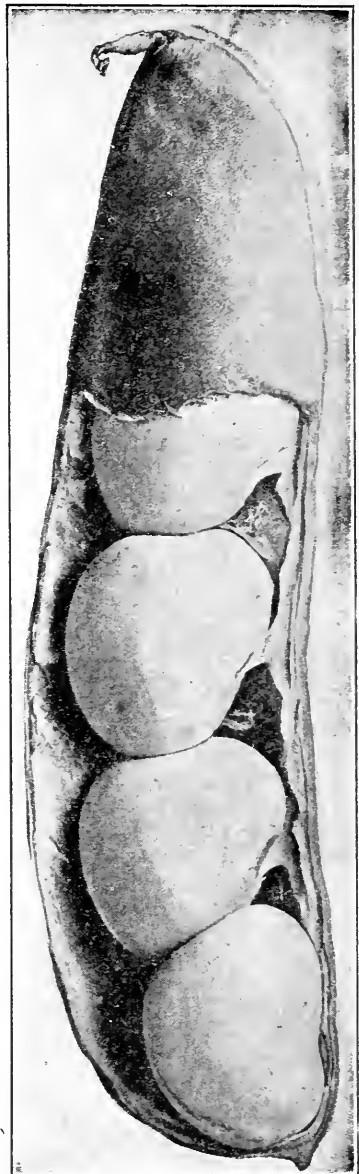
POLE LIMA BEANS

Large seeded sorts require 1 quart to 100 poles, $\frac{3}{4}$ bu. to an acre. Small Limas require about one-third the quantity.

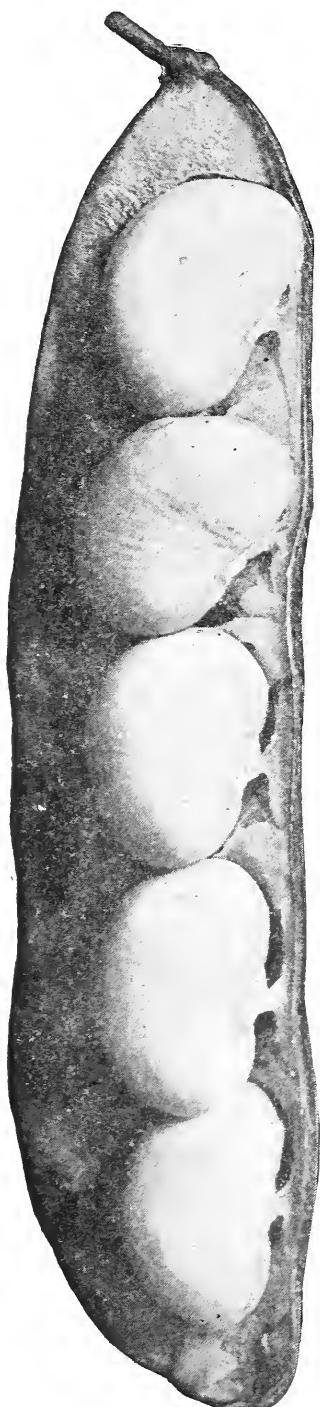
CULTURE.—These are to be treated like other Pole Beans excepting they should be planted one or two weeks later. Where soil is very stiff, it is best to plant the beans with the eye downward, as they will come up more rapidly.

35 **FORD'S MAMMOTH PODDED**—The result of 20 years' selection by a market gardener near Philadelphia. It far surpasses in size and productiveness many other sorts and has become very popular throughout all sections. Pods are very large, usually containing 4 to 6 beans. Vines vigorous, setting the beans early and very productive. Beans medium size, excellent quality.

36 **KING OF THE GARDEN**—A favorite sort on account of its large size and abundant yield. The beans are of greenish color, very tender and delicious.



FORDHOOK BUSH LIMA



FORD'S MAMMOTH PODDED

BEET TABLE VARIETIES

(See Page 4 for Prices)

These are popular in all gardens and as a rule a very profitable crop for market gardeners. Beets fresh from the garden are always more tender and delicious than those that are shipped. They can be sown in succession for different seasons and if too many are produced for table use, make excellent food for poultry and stock.

CULTURE—A deep loamy or sandy soil is best suited to beets. If wanted very early they can be sown in hot beds and transplanted in the open ground when the weather has moderated, but the outer leaves should be trimmed off when transplanting is done. The earliest outdoor sowing is done in March or April, in rows 15 to 18 inches apart, thinning or transplanting the plants to 3 or 4 inches apart in the rows. For winter use, sow in June or July. Roots can be stored in pits or cellars covering with sand to keep from wilting.

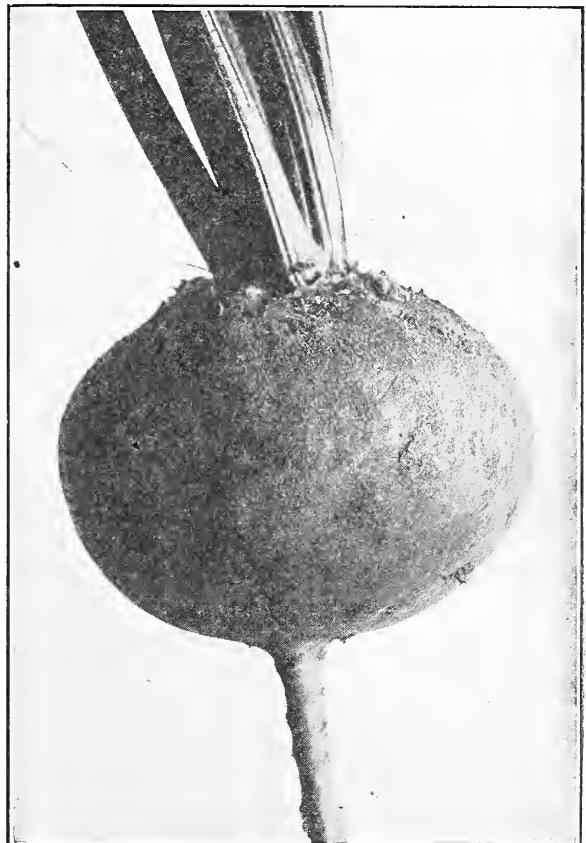
One ounce sows 100 feet of drill. 7 lbs. one acre.
Ready for use 40 to 75 days after sowing.

45 CROSBY'S IMPROVED EGYPTIAN—An improved sort which is very popular with market gardeners on account of its quick growth, extreme earliness and general good qualities. The tops are small, roots flattened but slightly globe shaped and very smooth. Exterior bright red and inside deep vermillion red zoned with a lighter shade. It is one of the very best, sweet and tender varieties, of excellent quality and popular both with the market gardener and for home use. It becomes fit to use earlier than any other variety and is much superior to some of the older sorts.

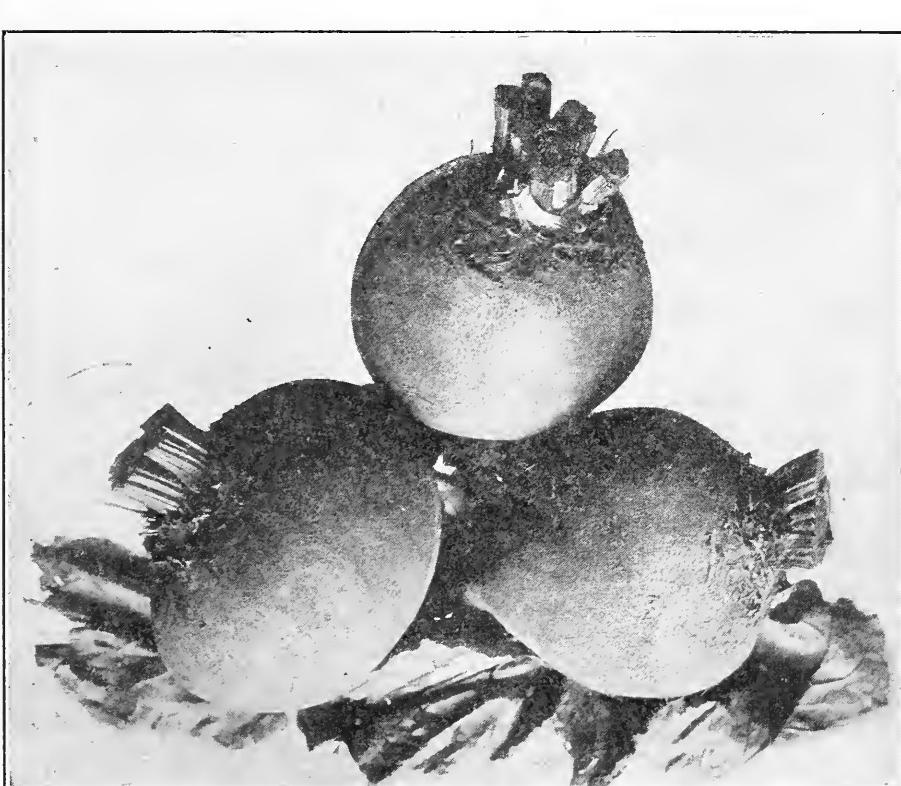
46 DETROIT DARK RED—Very early and becomingly popular. Produces medium size globe-shaped roots which are very smooth and of dark blood red color. Very desirable for bunching. Comparison of this with other varieties proves that Detroit Dark Red is the most uniform beet in size and most attractive in color. It is splendid for market or home gardens on account of its uniform deep red color and most desirable for canning.

47 EARLY ECLIPSE—This has long been a popular variety for home gardens and market growing. The tops are small, roots bright deep red, smooth, round or slightly top-shaped with a very small tap root. It is splendid for bunching; is very sweet, crisp and tender, especially when young.

48 NORWOOD BLOOD TURNIP—A superb early maincrop Beet. Both for market and the home garden. The roots are of neat turnip shape, growing three or four inches in diameter, deep through, smooth, and entirely free from small rootlets. Flesh deep blood-red, tender, and of rich flavor. Foliage is small, of a rich bronze color.



CROSBY'S IMPROVED EGYPTIAN



DETROIT DARK RED

49 EXTRA EARLY EGYPTIAN—An old well known popular variety which has long been a favorite with market gardeners. It is the earliest sort and largely used for forcing. Has very small tops and produces flat, medium size roots which are very dark red, moderately thick and distinctly flat on the bottom. Flesh is dark, purplish red, firm, crisp and tender.

50 EXTRA EARLY BASSANO—An early quick growing variety which is excellent for table; the leaves are especially adapted for use as greens. Roots are large, very light red and flattened; turnip shaped. Flesh pink, very sweet and tender when young. Called in some localities Sugar Beet on account of its sweet taste.

51 EDMOND'S EARLY BLOOD TURNIP—A dark red, nearly round variety which is slightly flattened. Exterior, dark red; interior, purplish red with a little zoning. Crisp, tender, sweet and one of the best for main crop, being an excellent keeper.

BEETS—TABLE VARIETIES CONT'D

(See Page 4 for Prices)

52 IMPROVED EARLY BLOOD TURNIP—A selected stock of this old and very popular variety. It is deep red color, zoned with lighter shade; roots round, slightly flattened and excellent for summer and autumn use.

53 CRIMSON GLOBE—Root of medium size, very handsome, globe shape and has a remarkably smooth surface. Both the skin and flesh are deep, rich red, fine grained, sweet and tender in all stages of growth. Small tap root; leaves are small, dark green.

54 DEWING'S BLOOD TURNIP—A medium early sort which is very tender and sweet and a good keeper. Roots are dark purplish red, turnip shape with a medium size tap. Tops medium size; leaf, stem and veins dark red; leaves green.

55 LONG SMOOTH BLOOD—A splendid late variety producing large, smooth, rather slender roots which grow largely under ground. It has few side roots and is good shape and color, exterior being dark purple, almost black, with delicate red flesh which is tender and sweet. It is an excellent sort for main crop or pickles. Produces very good crops so that it is a profitable grower for stock feeding.

56 SWISS CHARD—This variety is grown for its tops only which are boiled like spinach. It does not make edible roots but produces white leaves; the stalks should be cooked and served like asparagus. Makes a splendid summer vegetable and is becoming popular. Known also as the Silver or Spinach Beet.

BEETS—FOR STOCK FEEDING

(See Page 4 for Prices)

Too little attention is paid to this important crop for winter feed for stock. They yield enormously, sometimes making fifteen tons to the acre; are very nutritious, not only improving the general condition of stock but greatly increase both the quantity and quality of milk in cows. A variety of feed is always beneficial to all animals and Mangel Wurzel and Sugar Beets afford one of the best crops for this purpose as they are superior in feeding qualities to turnips and are a much larger yielding crop. All farmers and especially stock raisers should grow them extensively.

CULTURE—Sow in latter part of April, May or June at the rate of 6 lbs. to the acre, in rows 2½ to 3 ft. apart and thin to 8 inches apart. If the seed is soaked 24 hours before sowing, it germinates more quickly but it should be put in when the ground is moist. The crop is harvested before frost and packed away in barns or cellars. They can also be put into piles or ridges five or six feet high and covered with straw or litter to keep from freezing too much. When the winter weather comes on throw on a layer of four to six inches of earth. A protection of boards to shed heavy rains is also desirable.

57 MAMMOTH PRIZE RED MANGEL—Particularly suited to deep soils but succeeds on any medium or heavy soil. The roots are very large, uniform, and are enormously productive. Flesh is white, tinged with red. One of the best for general purposes.

58 GOLDEN TANKARD MANGEL—A variety which produces very large roots, oval shaped, the bottom being larger than the top. It is light grey above ground; deep orange yellow below, flesh yellow zoned with white. A splendid sort for shallow soil and produces enormously on rich ground.

59 YELLOW GLOBE MANGEL—Grows almost entirely above ground and especially desirable for shallow soils. Roots are globe shape, tapering to a tap root and of large size. It is easily pulled and a good variety for general purposes.

60 SILESIAN SUGAR—A splendid variety for stock feeding having large content of sugar which makes it of high nutritive value. Roots light bronze green above ground, greyish white below with white flesh. Can be pulled easily and a good, all around general sort.

61 LANE'S IMPERIAL SUGAR—A very popular variety for stock and one which will succeed well in this latitude. The roots grow to a large size and it is more like a Mangel Wurzel in character but the flesh is sweeter and more tender, being finer grained. Especially valuable for poultry.



YELLOW GLOBE MANGEL

Remember The J. Chas. McCullough Seed Company's Location:

STORE AND SALES DEPARTMENT:

228-230-232 E. 4th St.

TELEPHONE, MAIN 5640

Connecting all Departments

WAREHOUSE AND SEED CLEANING PLANT:

5th, Lock and Eggleston Aves.

BROCCOLI

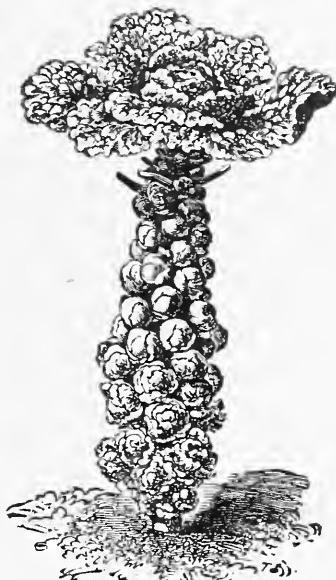
(See Page 4 for Prices)

A vegetable resembling Cauliflower, but growing a little more coarsely and capable of withstanding extreme cold weather and adverse conditions better. It is planted similar to early Cabbage. Or for late use, sow and treat as for late Cabbage. 1 oz. for 2,500 plants.

INSECT REMEDIES—Same as for Cabbage.

62 WHITE CAPE—A large flowering variety with dense, white compact leaves of excellent quality.

63 PURPLE CAPE—Similar to the above, excepting that the flowers are reddish purple. Very much esteemed by the Europeans for table use and excellent for pickles.



BRUSSELS SPROUTS

A vegetable of the Cabbage family, which is largely used in the Fall. It produces stalks about 2 feet high, which are covered with small, miniature heads, resembling small Cabbage. These are cooked and served like Cabbage and are very tender and delicious.

CULTURE—Same as for late Cabbage, but plants are set closer together.

64 PERFECTION—A semi-dwarf variety and one of the best.

STIMUPLANT
Makes a
WONDER GARDEN

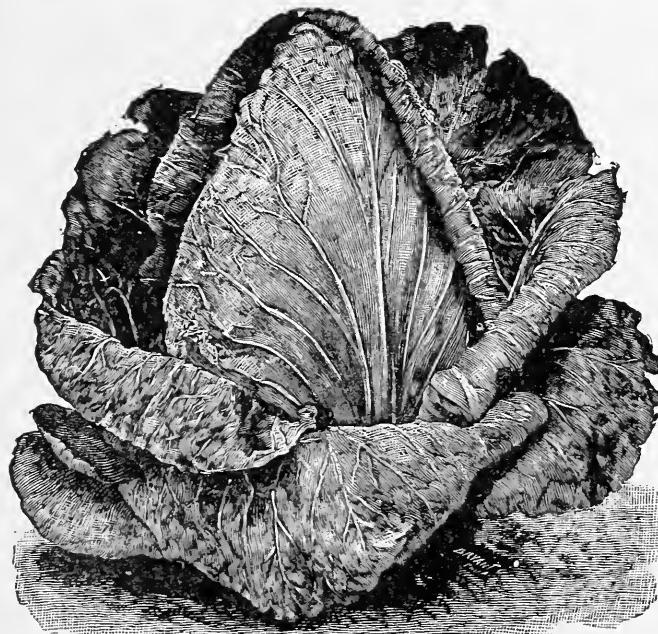
CABBAGE

STIMUPLANT
Makes a
WONDER GARDEN

FINEST AMERICAN STOCKS

(See Page 4 for Prices)

To raise the best crops of Cabbage, it is of the utmost importance that select seed stock be used. The varieties we list below are saved from the very best stocks and will give excellent satisfaction. We particularly call attention to Copenhagen Market, Charleston Wakefield and Late Flat Dutch, as being the leading sorts of the types. All home gardens should plant some Savoy Cabbage, as it is so much more delicious in flavor than the ordinary sorts. 1 oz. for 2,500 plants.



JERSEY WAKEFIELD CABBAGE

leaves. Stems short; heads of medium size, very solid and of excellent quality.

66 EARLY WINNINGSTADT—One of the best conical or sharp heading sorts which is compact and of excellent quality. Quick maturing. It is the hardiest, not only as regards frost but will suffer less from excessive wet, drought, insects or disease than any other sort of its class.

CULTURE—For earliest plants the seed is sown in hot beds from January to March. To make the best plants, sow early and transplant to cold frames. Then at the end of March or first of April, transplant to the garden. One ounce makes about fifteen hundred good plants. Six ounces makes plants enough for one acre. For summer use sow in the open ground in April and for late use sow in May or June. There is no crop that repays so well, heavy fertilization and constant cultivation. When plants are planted in the field, apply sheep manure either in the drills or around the plant, mixing with the soil.

INSECT REMEDIES—For Flea Beetle, dust with Tobacco Dust, Slug Shot or spray with Kerosene Emulsion or Tobacco Extract. The principal enemy of Cabbage is the cabbage worm for which dust with Slug Shot or Paris Green mixed with Land Plaster at the rate of one pound of Green to 100 lbs. of Land Plaster. For cabbage lice, spray with Kerosene Emulsion or Tobacco Extract.

FUNGUS DISEASES—Cabbage turning yellow is a result of disease usually due to lack of lime in the soil. This is also true of club root. A good application of lime, about 60 to 80 bushels to the acre, is most beneficial to cabbage.

FIRST EARLY SORTS

65 EARLY JERSEY WAKEFIELD—One of the earliest and by far the surest heading of first early cabbages. Most gardeners depend upon it entirely for their extra early crop. It is exceedingly hardy, resists cold and unfavorable conditions and is the most likely to yield satisfactory results. Plants are compact, with erect conical shaped heads and few outer

leaves. Stems short; heads of medium size, very solid and of excellent quality.

CABBAGE

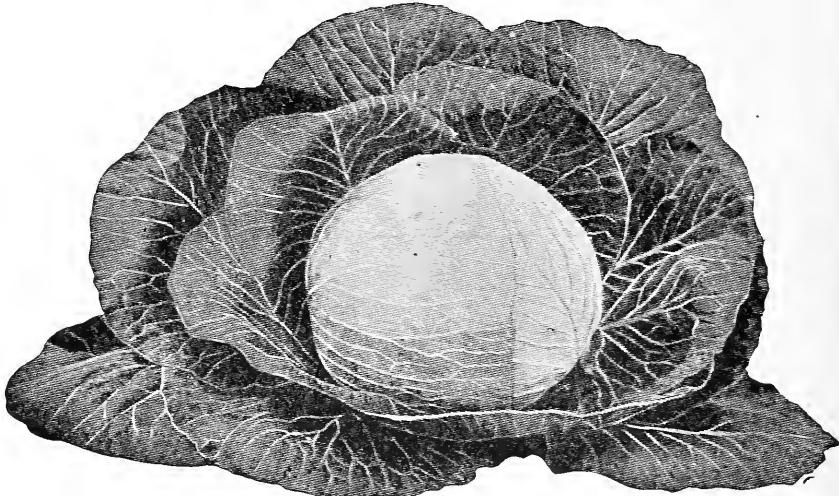
FIRST EARLY SORTS—CONT'D

(See Page 4 for Prices)

67 LARGE or CHARLESTON WAKEFIELD—An improved strain of Early Jersey Wakefield in that it is much larger though a trifle later. In some localities this is planted exclusively instead of Early Jersey Wakefield as it produces the grower more money. Follows immediately after Early Jersey Wakefield and should be planted by every grower.

68 COPENHAGEN MARKET—The earliest round head or flat cabbage yet introduced. The heads are exceptionally large and it has a very short stem and few outer leaves—a most excellent sort for home gardens and market gardeners. On account of extreme earliness, being almost as quick maturing as Charleston Wakefield, it is destined to become one of the leading sorts grown, as a flat cabbage fills barrels or crates faster than sharp head cabbage and will yield the grower more returns. We predict for Copenhagen Market an extensive cultivation. Our stock of this is from one of the best Denmark growers.

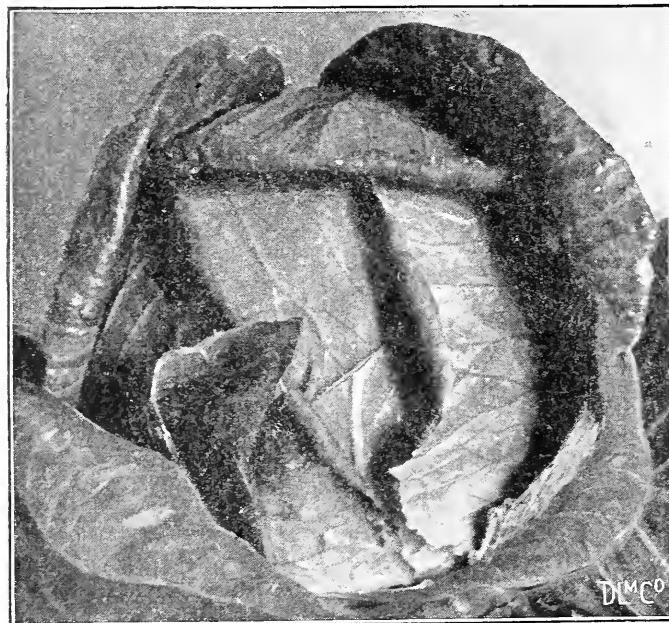
69 EARLY SPRING—Probably the earliest of flat-headed varieties. A profitable cabbage to grow as it heads early, has a short stem forming a round somewhat flat head quickly.



COPENHAGEN MARKET CABBAGE

SECOND EARLY SORTS

Pkts., ounces and $\frac{1}{4}$ lbs. mailed free at prices. Add 5c per lb. if to be sent by mail.



LOUISVILLE DRUMHEAD CABBAGE

70 LOUISVILLE DRUMHEAD—One of the most popular of the summer varieties, producing large, round heads which are very solid. It has been largely grown throughout the Central sections, and is much esteemed by market gardeners on account of its general reliable qualities. Our stock of this is extra choice and will give the best satisfaction.

71 GLORY OF ENKHUIZEN—A second early variety which is very sure heading, vigorous growth and general good qualities. The head is globular or very nearly round, very solid and of large size; has spreading outer leaves which are noticeably curved and frilled. Matures about two weeks later than Copenhagen Market and is destined to become one of the most popular of second early sorts.

72 ALL SEASONS—One of the largest and a thoroughly satisfactory second early sort. Plants are vigorous, sure heading; leaves large and smooth. This is a first class sort both for early and late planting and is especially adapted for kraut. It is well adapted to stand the hot sun and adverse conditions.

73 EARLY DWARF FLAT DUTCH—A variety which has long been popular among growers, both for home use and market. The heads are borne on short stems and are very large, solid and nearly flat on the top. Practically nearly every plant will form a good, solid head, which will mature earlier than Late Flat Dutch.

74 HENDERSON'S EARLY SUMMER—An excellent second early Cabbage, which is a vigorous, strong grower, producing moderately large heads. It has rather spreading outer leaves, which are somewhat frilled, and the stem rather short. The heads are round, solid and a trifle earlier than other summer sorts, and in addition will stand longer without bursting than most others.

75 ALLHEAD EARLY—A popular sort which has been much planted in the East and produces good, round heads, similar to Early Summer. Its growth and characteristics are also about the same.

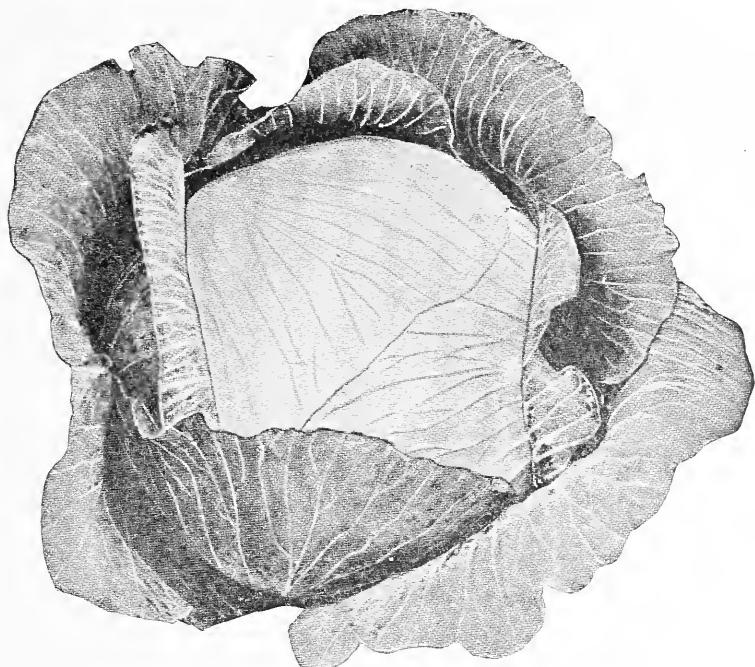
76 VOLGA—A somewhat late variety but a very desirable addition to our list. It produces large, uniformly round heads on short stems; compact growth and matures early for a variety having such a large head. It is exceptionally hardy, a good keeper, not subject to diseases and uniformly satisfactory.

CABBAGE—LATE SORTS

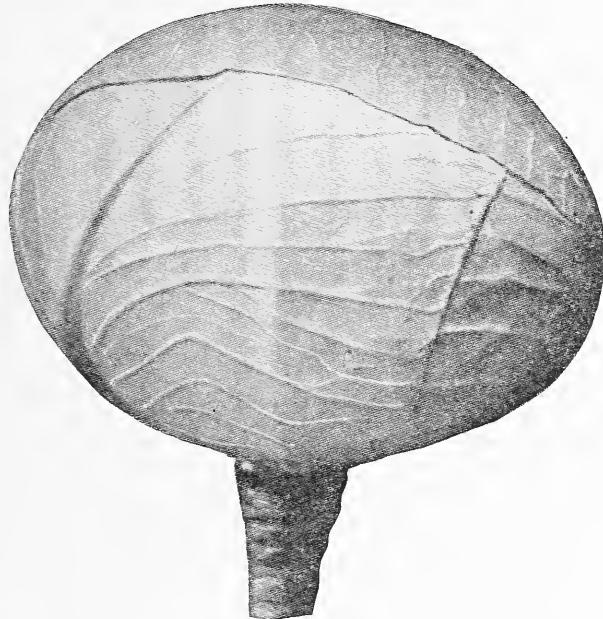
(See Page 4 for Prices)

77 JMC LATE FLAT DUTCH—A very superior strain of this well known popular Cabbage, which is exceptionally reliable for main crop planting. It is short stemmed; has rather large early leaves, very showy heads and produces uniformly large, flat, deep solid heads of splendid quality. It is an excellent keeper and can be relied upon as thoroughly satisfactory.

78 LARGE LATE DRUMHEAD—One of the oldest and most popular of late sorts, producing large rounded heads. It has been grown for many years and our stock is an improved stock. The heads are somewhat more globe shaped than the Late Flat Dutch. Leaves large, loose, spreading. An excellent keeper.



JMC LATE FLAT DUTCH CABBAGE



DANISH BALLHEAD CABBAGE

desirable of all Cabbages. It is used almost entirely for late planting and attains its greatest perfection in flavor after frost, when it becomes as tender and even more delicious than Cauliflower. The heads are of medium size, borne on short stems and not as large as the ordinary Late Cabbage, hence will stand closer planting. Our stock of this is American grown and will produce uniformly large heads for this variety. We strongly recommend it to be more extensively grown both for home use and market.

82 RED—A variety used mainly for pickles and sauerkraut. It is highly esteemed.

83 Pe-Tsai—This delicious Chinese vegetable belongs to the Cabbage family and closely resembles a well grown Cos lettuce, but is heavier. We advise that the seed be sown about August 1 (not earlier). Either start in frames and transplant, or simply sow where the plants are to remain in rows, $2\frac{1}{2}$ feet apart, thinning to 12 inches apart in the row. The light green, crumpled-leaved heads are very tender and of a delicious flavor.

CABBAGE PLANTS

We can supply nearby customers with Early and Late Cabbage Plants which we grow on our farms. We do not send these plants by mail.

CARROT

FINEST FRENCH STOCKS

(See Page 4 for Prices)

An easily grown, useful and most healthful vegetable which should come into more extensive use. In Europe they are extremely popular, and as they add flavor to soups and meats, besides being healthful, delicious and to an extent ornamental, should be more largely used. In addition to their table uses, they make excellent pickles, and any that are left over are nutritious food for all kinds of stock and poultry.

CULTURE—Carrots do best on rich, light, loamy soil, and where the soil is shallow or stiff; select the short growing varieties, rather than the longest rooted sorts. For early crop sow in March; for main crop in April or May, in rows 18 inches apart, cultivating and weeding as soon as the plants are up. Continue in cultivation until maturity. Cover the seed half an inch deep and see that the soil is pressed firmly; thin four to six inches apart.

One ounce sows 100 feet of row. 3 or 4 lbs. per acre. Ready for the table in 40 to 70 days from germination.

86 **FRENCH FORCING**—A short rooted sort which is the earliest variety in cultivation and desirable for forcing or earliest crop. Tops small, roots reddish orange, nearly round when forced and somewhat longer in shape when grown out doors. When fully matured from two to two and a half inches long.

88 **EARLY SCARLET HORN**—One of the best for early planting out of doors. Roots orange red, about 3 inches long, top shaped tapering abruptly, has small tapering roots matures in about 45 days.

89 **OXHEART (or Guerande)**—A short, thick growing variety, especially adapted to stiff or hard soils. Roots four and a half to five inches long, very thick, ending abruptly in a small, tapering root. Flesh bright orange, finest quality, an excellent sort for market home use and fine for stock feeding and poultry.

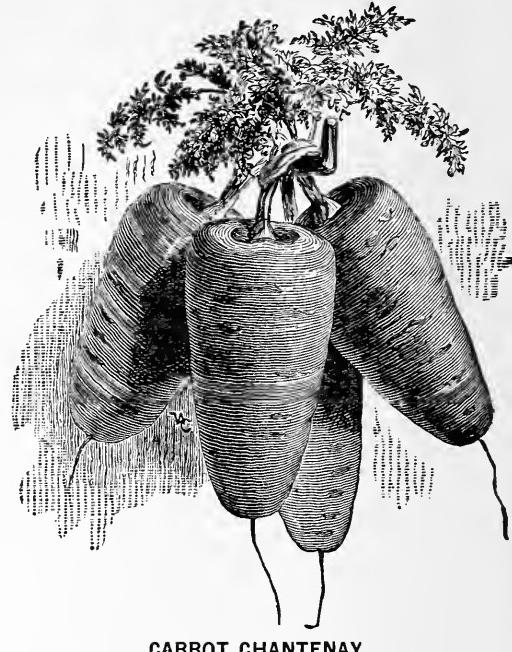
90 **CHANTENAY**—A medium early variety, orange red color, crisp and tender. Roots smooth, thick, five and a half to six inches long, uniformly stump rooted but tapering slightly. One of the best in quality and productiveness for either home garden or market and especially desirable for heavy soils, because it can be harvested easily.

91 **HALF LONG DANVERS**—A deep orange, tender variety, producing roots of medium length, six to eight inches long, tapering uniformly to a blunt point. They are very productive and well adapted to nearly all classes of soil for main crop planting.

92 **NANTES OR HALF LONG SCARLET**—A handsome variety, producing roots of medium size, slender with small necks. Roots usually five to six inches in length, sometimes longer. A good sort for moderately early planting.

93 **IMPROVED LONG ORANGE**—A well known popular sort, well adapted for loamy or deep soil, on which are produced very large crops. Roots deep orange color, usually about twelve inches long, three inches in diameter at the crown, tapering to a point. An excellent sort for table use, markets and particularly adapted for stock feeding. Roots tender and of good quality.

94 **LARGE WHITE BELGIAN**—Used entirely as a field crop for stock or poultry. Produces enormous creamy white roots three and a half to four inches at the top, tapering to a point. The carrots are among the best of root crops; and we strongly advise more extensive planting of White Belgian.



CARROT CHANTENAY

CAULIFLOWER

One of the most delicious vegetables in cultivation but on account of its difficulty in growing, not so general in the average garden as it should be. Any one, however, can be reasonably sure of success if good seed is obtained and cultural instructions given below followed.

CULTURE—For early spring or summer crop sow the seed in January or February in hot beds. When the plants have four leaves transplant to cold frames for development. Towards the end of March or early part of April, set in open field and cultivate the same as cabbage. If the soil gets very dry, water well when possible. When the plants are set in the garden, the ground should be rich; if not so, a little sheep manure or well rotted manure should be worked into the soil before the plants are set out. The plants should be thoroughly worked during the growing season and when the heads commence to form, the leaves should be tied over the flowers to protect from the sun and make them white. For fall use, sow at the same time as for late cabbage and treat in the same manner. Cauliflower will not head in very hot weather—hence, for fall use, too early sowing is not desirable.

INSECT REMEDIES—For the cabbage worm, dust with Tobacco Dust or spray with Kerosene Emulsion. For lice, spray with Kerosene Emulsion or Black leaf 40.

¼ ounce produces about 500 plants. Three ounces will make enough plants to set one acre.

CAULIFLOWER PLANTS SUPPLIED IN SEASON. Earliest Snowball and Early Dwarf Erfurt.

SOME SUGGESTIONS PAGE 96.

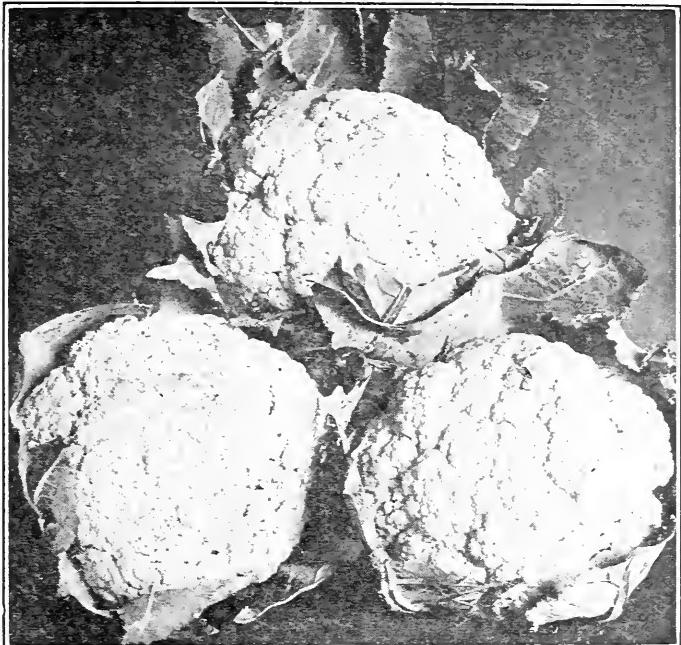
CAULIFLOWER—Cont'd

(See Page 4 for Prices)

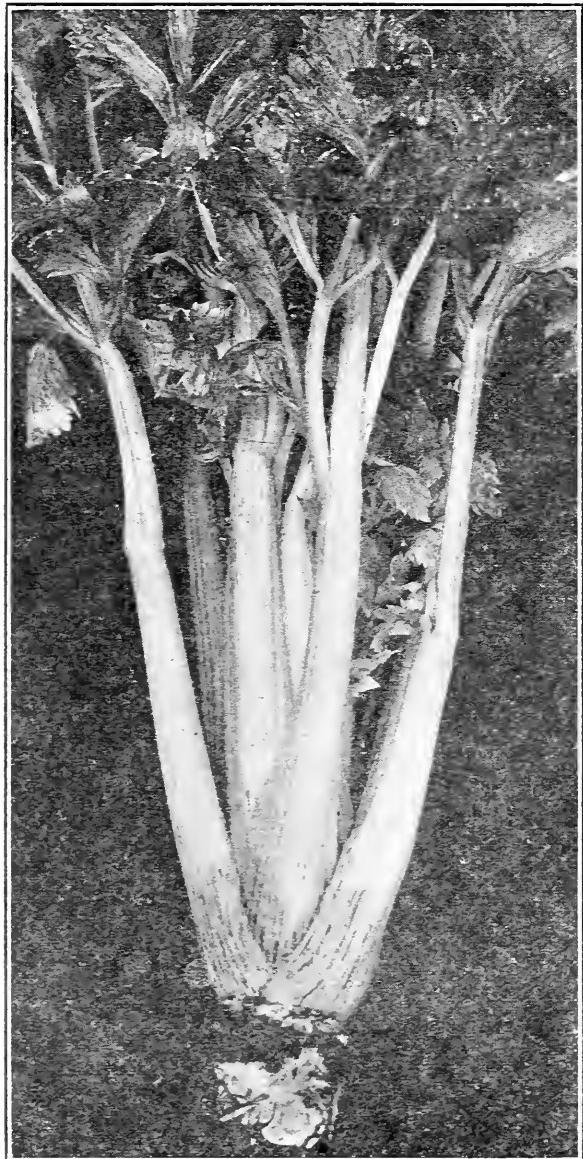
96 EARLIEST SNOWBALL—Unquestionably the earliest maturing strain of short leaf type of Cauliflower. It is well adapted for forcing or winter use for early crop and is one of the most popular of all sorts both for the market gardener and home use. The plants are compact, leaves small, and can be adapted for close planting. Produces large size flowers pure white, of most excellent quality. Our strain of this is selected Denmark grown and can be relied on as one of the most satisfactory of all.

97 EARLY DWARF ERFURT—Similar in general characteristics to Early Snowball but not quite so early and somewhat larger in growth. It is especially desirable for field planting for late crop but as a second early crop.

98 DANISH GIANT—A comparatively new variety which is more heat resisting and has been termed "Dry Weather Cauliflower". It is later maturing than either Snowball or Erfurt but as it withstands adverse weather conditions, is extremely desirable especially for late use. Produces large sized heads; is of more robust growth than other sorts.



EARLIEST SNOWBALL CAULIFLOWER



GOLDEN SELF BLANCHING CELERY

CELERY

(See Page 4 for Prices)

This is one of the most profitable crops for market gardeners where the acreage is small. It is popularly supposed to be a difficult crop to grow but this is not true if ordinary preparation and care are taken. It requires rich soil, heavy manuring, plenty of water and careful attention.

CULTURE—For earliest crop the seed should be sown in hot beds from the middle of February to the end of March. For main crop sow in open ground March or April, according to the weather, in rows 15 inches apart. The seed is sometimes slow to germinate, and in dry and hot weather water well. Careful weeding by hand will have to be done until the young plants get started. Seed sown in beds should be transplanted. When the plants are set in the open field, trim the tops off and put in rows about 5 feet apart, setting plants 6 to 8 inches apart. Cultivate constantly during the growing season, and as the crop matures it must be earthed up or blanched. Sometimes this is done by placing two boards upright, close to the plants and filling in dirt both on the sides and in between the plants. The stalks are handled by hand but the soil must not be allowed to get in the center. Sometimes, Celery is set in beds about 4 feet wide, 6 inches between plants and 12 inches between rows, the earth being thrown out on each side of the bed. Then as it grows it is earthed in for blanching. A new method of growing Celery, which is sometimes used, is to plant a plot completely over, setting plants about 6 inches apart. This enormous growth shades the young stalks so that they turn white but it requires exceedingly rich, heavily manured soil, deep and well drained and plenty of water for irrigation. An ounce sown in about 100 feet produces 5 to 8000 plants. 4 to 6 ounces produce plants enough to set one acre, which mature in 120 to 150 days according to the kind and location.

100 IMPROVED WHITE PLUME—An extra early and very handsome sort which is very popular with market gardeners, especially for very early crop. Leaves are light, bright green at the base, shading nearly white at the tip. As plants mature the inner stem and leaves turn white and consequently require less earthing and blanching before they are in condition to use or market. While it is very attractive and the earliest sort, its quality is not nearly so good as that of most other varieties, being somewhat stringy and not so tender.

101 GOLDEN SELF BLANCHING—This is not only a very early variety but one of the best for home use or market. It is not quite so early as White Plume but so much finer quality that it is generally preferred as a main crop sort. Plants are medium size, compact and stocky with yellowish green foliage. As they mature the inner stem turns a beautiful yellow golden color and blanching is early accomplished. Being of handsome color, very crisp, tender, free from stringiness and of fine flavor, it is the leading sort grown.

CELERY—Cont'd

(See Page 4 for Prices)

102 GIANT PASCAL—A green leafed variety of the Golden Self Blanching type, from which it was developed, and one of the best for fall and early winter use. It blanches a beautiful yellowish white, is very solid and crisp and has a fine nutty flavor. Stalks of medium height, thick, solid, flattening towards the base and one of the best for main or late planting.

103 DWARF GOLDEN HEART—A well known variety which has long been popular both for market gardening and home uses. It is of medium height, stalks moderately large which when maturing turn a beautiful golden yellow color. More easily handled and brought to perfection than the Golden Self Blanching.

104 PARIS GOLDEN—A very superior and attractive variety with short thick ribs which when mature are a beautiful golden color with rosy pink on its outer ribs. It is one of the finest flavored celeries, very crisp and brittle; not so early as the White Plume or Golden Self Blanching but a thoroughly reliable sort for late crop.

SANFORD EASY BLANCHING

105

EASIEST AND QUICKEST TO BLANCH; LONG KEEPING

A valuable celery of recent introduction and is now extensively grown by the most progressive celery growers throughout the United States. The stalks are stocky in growth and of medium height and are the easiest and quickest to blanch and keep better in the trench than other sorts. The tender, brittle, sweet, nutty flavored stalks are attractive in appearance. Ready for the table or market in about 115 days. Grows equally well on muck or upland.

107 CELERIAC OR TURNIP ROOTED CELERY—Very popular with the French and Germans and is used for its roots only which have a fine, sweet, nutty celery taste. It is used either boiled or raw, has a delightful flavor and can be used in soups, salads or as a table vegetable. Culture about the same as for Celery.

CELERY SEED for flavoring.

CELERY PLANTS supplied in season. (June, July, August.) Varieties, White Plume, Golden Heart, and Golden Self Blanching.

CHICORY

(See Page 4 for Prices)

108 WITLOOF OR FRENCH ENDIVE—This is the new salad which is so much relished by epicures at the leading hotels. When properly grown, there is nothing better. The seed should be sown in the open ground in a light and moderately rich soil not later than June, in rows 12 to 18 inches apart, thinning out plants to 8 inches apart. The plant forms long parsnip shaped roots, and these should be lifted in the fall cutting off the leaves $1\frac{1}{2}$ inches above the neck, and then stored in cool place until wanted for forcing. Sort the roots according to size. The roots should be planted in a trench 16 to 18 inches deep and placed upright about $1\frac{1}{2}$ to 2 inches apart so that the neck of the root is about 9 inches below the level of the trench. The roots should be covered with a light soil, muck or peat. If quicker growth is desired, use fresh horse manure, about 2 feet deep, for bottom heat, cover manure with 8 inches of soil, then plant roots. It requires about a month to force the roots, and the heads are cut off with a small portion of the root-neck attached. It is remarkable for the width of its leaves and the great size of its ribs and stalks. The roots, when grown in trenches as above, produce the young leaves known as French Endive, which is becoming very popular as a winter salad. We print full cultural directions on every bag.



CORN—GARDEN SORTS

(See Page 5 for Prices)

Pkts and $\frac{1}{2}$ Pts. Postpaid. On Pints add 5c;
on Quarts 10c; if to be sent by mail.

One pint plants about 200 hills, six to eight quarts to an acre. For succession planting about every two weeks from April to end of July; ready for the table 60 to 90 days from planting.

CULTURE—Extra early dent corn can be planted at the end of March or early in April. Sugar corns are more tender and should not be planted until the warm weather is settled and ground becomes warm. Cultivate frequently and keep the ground free of weeds. A handful of our Bacterialized Humus dropped in each hill will increase the yield.

EARLY DENT CORNS.

These are not sugar corns but valuable for their hardiness as they can be planted earlier and will mature quicker than sugar corns—hence, usually very profitable for market gardeners.

110 **EXTRA EARLY ADAMS**—The earliest variety and extensively used for first early table corn in the South. Stalks about 4 ft. high with few leaves and without suckers. Ears short, very full, 12 to 14 rows, kernels white and smooth; an extremely hardy sort; can be planted close together and usually popular.

111 **EARLY ADAMS**—A little larger and later sort of about the same characteristics as Extra Early Adams. Stalks about 6 ft. high, ears 12 to 14 rows and a good variety for second early or very late planting.

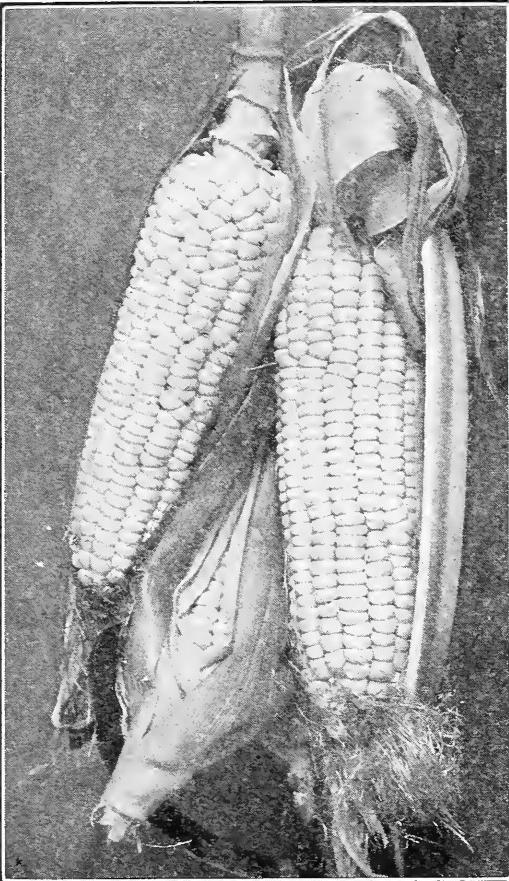
CORN—SWEET OR SUGAR EARLY VARIETIES

Sweet or Sugar Corns are so much superior for table use to the ordinary dent or field varieties, that they should be planted exclusively for this purpose except for very earliest crops. They are very prolific, producing in many cases 3 to 4 good ears to the stalk. As a market crop, corn is very profitable, as an acre produces from 800 to a 1000 dozen ears which sell readily at good prices.

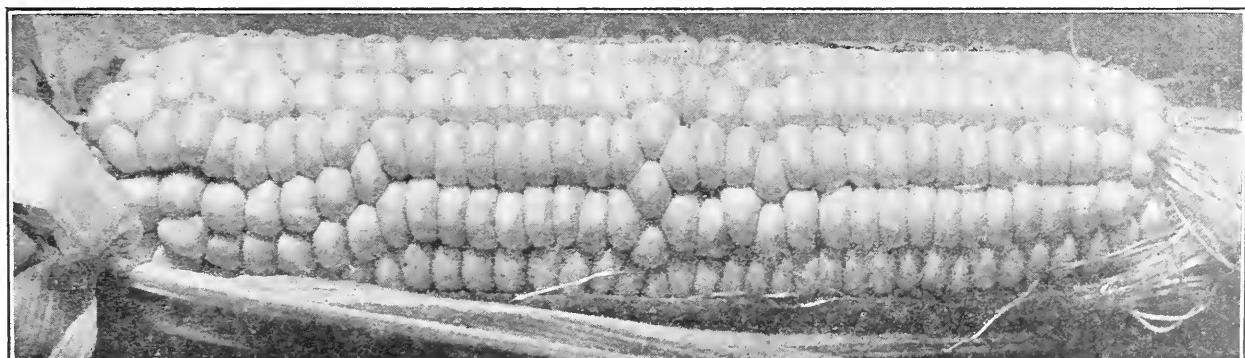
113 **GOLDEN BANTAM**—This is becoming one of the most popular of early sorts on account of its quick maturity and extra fine quality. Ears are eight rowed, 6 to 7 inches long, of medium size with golden yellow grains which are very tender and have a peculiar, delicious flavor. Height 4 to 5 ft., very much desired for family gardens.

114 **PREMO**—Premo can be planted fully as early as the Adams, for the young plants withstand slight frosts, while the other varieties are tender and the seeds will rot if planted before the soil becomes warm. The stalks grow about five feet high, and are very vigorous, generally bearing two well-developed ears to the stalk.

116 **EARLY SHEFFIELD**—A cross between Adams Extra Early and Early White Cory, which combines the robust growth and extreme hardiness of the Adams with fine sugary quality of the Cory. Ears average about six inches long, grains of medium size, arranged in ten to twelve regular rows.



ADAMS EXTRA EARLY CORN



GOLDEN BANTAM

CORN—SWEET OR SUGAR—Cont'd

(See Page 5 for Prices)

117 BANTAM EVERGREEN—A cross between Golden Bantam and Stowell's Evergreen and is a most excellent sort of fine quality. The ears average 8 inches long and are 12-rowed, the grain is rather broad and deep and of a rich golden-yellow color.

118 BLACK MEXICAN—For home use we consider this one of the best second-early sorts where tenderness and sweetness are the qualities most desired. The stalks grow about 6½ feet high, producing ears usually 8 inches long and 8-rowed. The dry grain is dark bluish black. The ripe Corn on the cob is also bluish black but, if used young, this Corn cooks remarkably white. This is an interesting variety.

119 MAMMOTH WHITE CORY—One of the best, extra early corns producing very large ears for so early a variety. Stalks about 4 ft. high, generally bearing 2 large finely shaped ears which become fit for use very early. Grains large, broad, very white, of fine quality and usually 12 rows to the cob. A splendid sort for private gardens and probably the most profitable for early market gardens.

120 COUNTRY GENTLEMAN—Probably the most popular of all sorts for home gardens on account of its sweetness, tenderness and delicious flavor. Ears 7 to 8 inches long, round, medium size. Grains zigzag or staggered, small in size but set close on the cob and very deep.

121 STOWELL'S EVERGREEN—One of the standard main crop sorts which has long been popular with commercial growers, canners and one of the best for home gardens. It is hardy, thrifty, productive, very tender and sugary and remains in edible state longer than most other sorts. Ears 7 to 8 inches long, having 14 to 20 rows; of very deep grain. Stalks 8 to 9 ft. high, bearing 2 or 3 large ears.

122 ZIG-ZAG EVERGREEN—A development of the Stowell's Evergreen which has become very popular. The rows instead of being straight are irregular; the grains set very close on the cob. Ears are 8 inches long large grains, very deep, sugary, tender and of fine flavor. This is becoming a very popular sort and in many sections is superseding the well known Stowell's Evergreen.

123 LATE MAMMOTH—The largest and latest of all Sugar Corns, producing ears which are about 11 inches long, 16 to 18 rowed. Grains are broad, somewhat short, but of good flavor, sweet, tender and delicious. One of the best sorts for late crop especially for market.

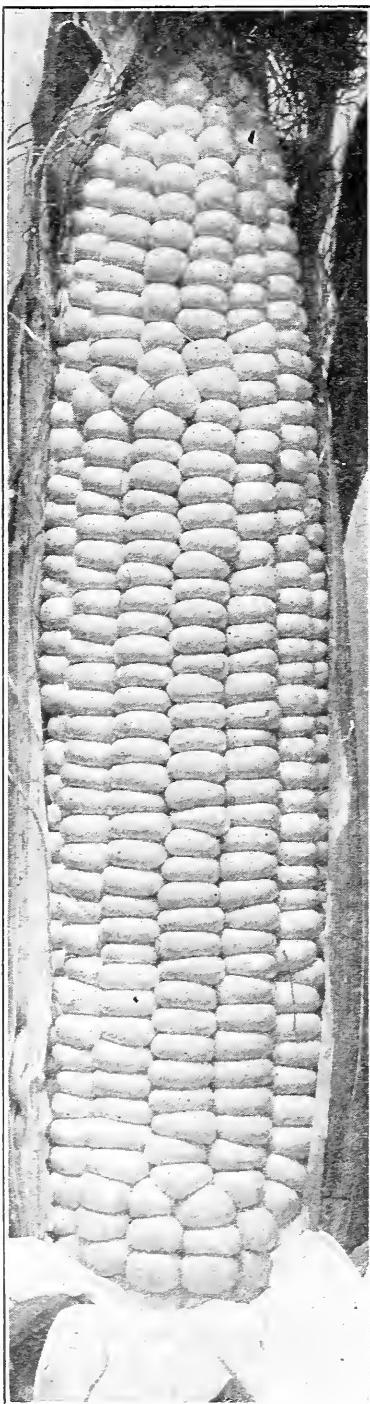
124 EARLY MAMMOTH—Resembling the well known Late Mammoth in general characteristics but 10 days to two weeks earlier and slightly smaller in size.

125 HOWLING MOB—A variety a little later than Mammoth White Cory. Ears measure seven to nine inches in length, twelve to fourteen rows; white grains. Stalks strong, of vigorous growth, four and a half to five feet in height, have abundant foliage and usually produce two good ears to the stalk.

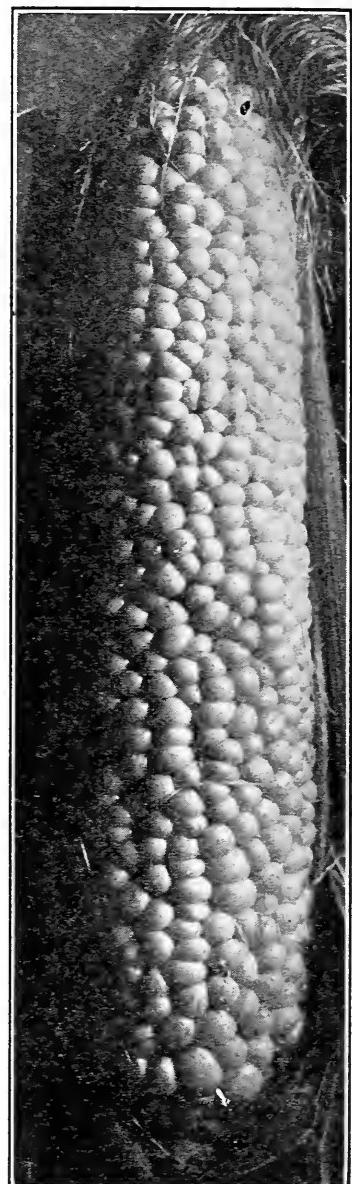
126 EARLY MINNESOTA—Not quite so early as Mammoth White Cory but one of the best second early sorts for market and home gardens. Stalks about 6 ft. high, bearing 2 ears about 8 inches long, 8 rowed, broad kernels which do not shrink much in drying.

127 KENDEL'S EARLY GIANT—A remarkably large eared second early sort which is very popular in some sections. Ears are 8 to 9 inches long, 12 row; grains broad, rather shallow but the quality is good.

128 CROSBY'S EARLY—A second early sort, having twelve rows; grains pure white, deep, very sweet and tender. More largely used for canning than any other early sort.



STOWELL'S EVERGREEN CORN



COUNTRY GENTLEMAN CORN

POP CORN A very profitable crop in many sections and grown in enormous quantities. It is popularly "the boys' crop" and all gardens should have a small quantity.

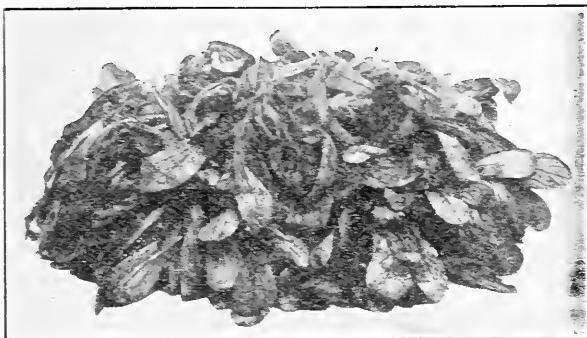
129 **RICE**—A well known white sort with pointed grains; very highly prized for popping and most satisfactory.

130 **WHITE PEARL**—A smooth grained sort making fair sized ears; grains pearly white reliable for popping.

131 **QUEEN'S GOLDEN**—A large eared yellow sort having grains about twice as large as the white sorts. It pops perfectly white and is tender.

CORN SALAD A popular crop with Europeans and an excellent salad for winter and spring. The seed is sown in August or September, in drills one foot apart. Press on the soil to make it firm and it will germinate better. As freezing weather approaches cover with straw or coarse litter. Seed can also be sown very early in the spring if on rich soil.

132 **LARGE SEDED**—Round leaved, the best variety.



CORN SALAD

CUCUMBER

(See Page 5 for Prices)

Usually a profitable crop for market, as if not salable for table uses, finds a fair market with pickle factories. All home gardens should grow Cucumbers, as they are useful as a salad or for pickling. Cucumbers fresh from the garden are much superior to those purchased, which are often wilted.

One ounce plants 50 hills; two pounds to one acre. Plant in April or May for early crop; ready for the table 50 to 75 days from planting.

CULTURE—Rich soil or one containing plenty of well rotted manure is best; hence, hills are usually made about 4 feet apart using manure or sheep manure well mixed with the soil. For very earliest crop the seed may be started in hot beds, in pots, small paper boxes, or pieces of sod, grass side down, so that they can be readily transplanted to open ground without disturbing the roots. For earliest crop outdoors plant 8 to 10 seeds in hills or drills 4 feet apart. On cold nights or threatened frost they can be protected by pieces of paper weighted with earth; after danger of frost and destruction by insects, thin the plants to about 4 to the hill. For late crop plant from the end of May until July. Cultivate occasionally keeping the grass and weeds out, and when the fruit is ready for use, pick whether wanted or not, as it will extend the life and productiveness of the vines.

INSECT REMEDIES—For the Yellow Striped Beetle, dust with Tobacco Dust or Slug Shot. Sometimes covering with dry earth will be beneficial. For the Cucumber Borer which bores into the cucumber, hand-picking and destroying the infested cucumbers is the only remedy.

135 **IMPROVED EARLY WHITE SPINE**—One of the best sorts for table use and probably the most popular sort grown by market gardeners and truckers. The vines are vigorous, producing fruit early and abundantly. Fruits are uniformly straight, about 8 inches long, vivid green color changing to and streaked a whitish green at the tip.

136 **IMPROVED LONG GREEN**—One of the most popular sorts for home gardens and in country districts for home markets. Fruits are very long, often 12 inches, slender and uniformly dark green color. It is rather late maturing. The vines are very vigorous and fairly productive. The matured fruits are excellent and tender for table use and both large and small can be used for pickling.

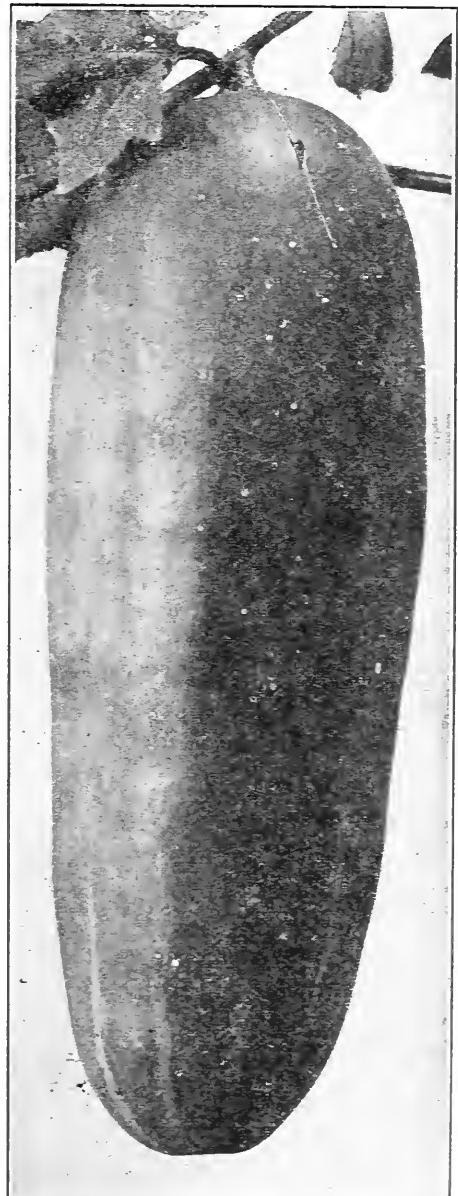
137 **DAVIS PERFECT**—A development by crossing the Improved Long Green with an English Frame Variety. It is dark, rich green color, slightly tipped with white at the end; has very few seeds and excellent for slicing. Fruits are often 12 inches long, very slim and showy. Particularly fine for home gardens.

138 **EARLY FRAME**—A well known short, green variety, producing quite abundantly, uniformly straight, moderate sized fruit. Valuable for very early planting or for late use for pickling as it is more prolific than the large fruited sorts.

CRESS

133 **CURLED CRESS**—Leaves of this are much frilled and curled. Used for garnishing and with lettuce as it gives a pungent taste which makes an agreeable addition. Plants are of rapid growth and attain a height of about one foot.

134 **WATER CRESS**—This is a well known cress, used extensively for garnishing and as a salad. It will succeed anywhere that the ground is moist; is especially valuable around springs and along small streams. After once established it will need no further attention. When gathered it should be cut—not broken off. In summer it is best to cut closely, the oftener the better.



IMPROVED WHITE SPINE CUCUMBER

CUCUMBER—Cont'd

(See Page 5 for Prices)

139 KLONDYKE—A variety of the White Spine type which is somewhat darker green and a little more pointed at the ends. It is very popular in some sections; produces abundantly and has a fine, tender flavor.

140 EARLY FORTUNE—The finest type of White Spine yet produced. Early and very productive; fruits grow 9 inches long, slightly tapering, flesh white, firm and crisp with very few seeds; color dark green. Quality is excellent, either when sliced for use at the table, or for making pickles.

141 JERSEY PICKLING—A variety shorter than Long Green, slender and produces very abundantly. Vines are vigorous and productive. A very popular main crop sort for market and commercial uses.

142 GREEN PROLIFIC—This variety has long been popular with commercial growers for pickling. The vines are healthy, vigorous and very productive. Fruits medium length, straight, smooth and vivid green and uniform.

143 NICHOL'S MEDIUM GREEN—A variety intermediate in length between the White Spine and Long Green, producing straight, medium sized cylindrical fruits of dark green color, which are most excellent for slicing and extremely popular for pickling. Vines vigorous, productive. A very profitable variety for canners and commercial growers for late crop.

144 EARLY GREEN CLUSTER—Short and prickly; bearing in clusters; prolific; fine for bottling.

145 COOL AND CRISP—The beautiful green color is all that can be desired. Excellent for pickling or slicing.

146 JAPANESE CLIMBING—A variety having very strong vines which throw out numerous tendrils and can be trained upon trellises or poles. The skin is smooth, dark green, turning to brown and netted when ripe. The flesh is pure white, crisp, and of mild flavor. Fruits 12 to 16 inches long. It is an abundant producer of long, straight handsome large fruits.

147 GHERKIN OR BURR CUCUMBER—Grown exclusively for pickles and especially for mangoes and sweet pickles. The fruits are small, oval, prickly and produced abundantly. Vines are longer and more vigorous than cucumber vines—hence, require a little more space. The seed is distinctly smaller than other Cucumbers.

EGG PLANT

(See Page 5 for Prices)

A well known popular vegetable which produces large purple fruits. It is served mostly fried. Seed germinates slowly and should be started in hot bed.

One ounce produces 1500 plants. Four ounces will produce enough to set one acre. Ready for table in 120 days from sowing.

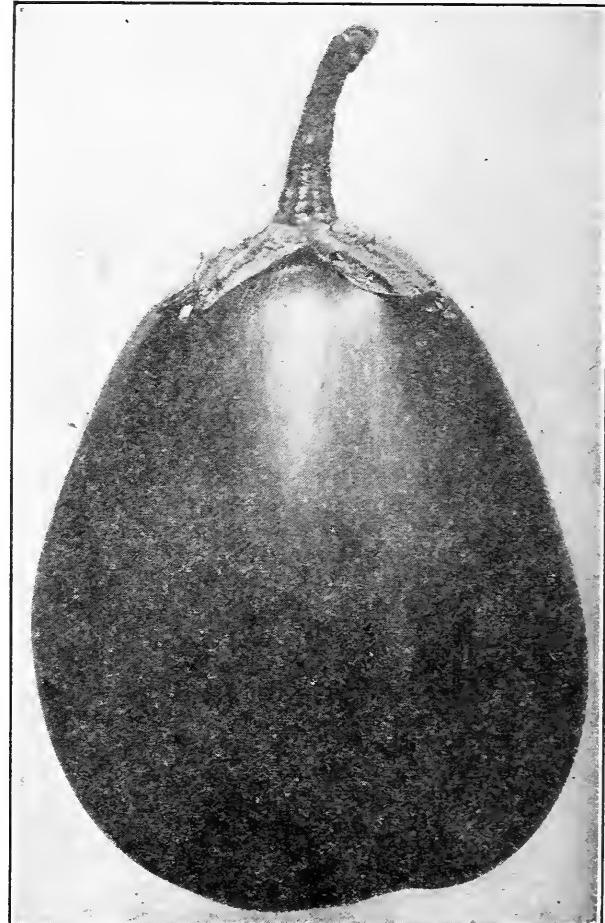
CULTURE—Sow in February or March in warm hot beds. When the plants have two rough leaves, transplant to 3 or 4 inches apart or into small pots; after all danger of frost is past, say about the middle or end of May, transplant to the garden, setting plants about three feet apart each way. It is desirable to protect the young plants from very hot sun at first.

INSECT REMEDIES—For the potato bug or squash bug use Slug Shot or Paris Green mixed with flour or Land Plaster. (See under heading of Cabbage.)

148 BLACK BEAUTY—Ten days to two weeks earlier than New York Improved Purple. Fruits slightly longer and darker than this variety, being rich dark purple, large and symmetrical. It is very desirable for market as it holds its color a long time. It is entirely free from spines; splendid for early crop or very late planting.

149 NEW YORK IMPROVED PURPLE (Spineless)—This has long been a general favorite both for market gardeners and home use. It is the largest variety in cultivation and one of the best. The plant is robust, usually producing 4 to 6 large, oval fruits of splendid, dark purple color.

PLANTS, per doz. 40c; per 100 \$3.00 Ready in May.



BLACK BEAUTY EGG PLANT

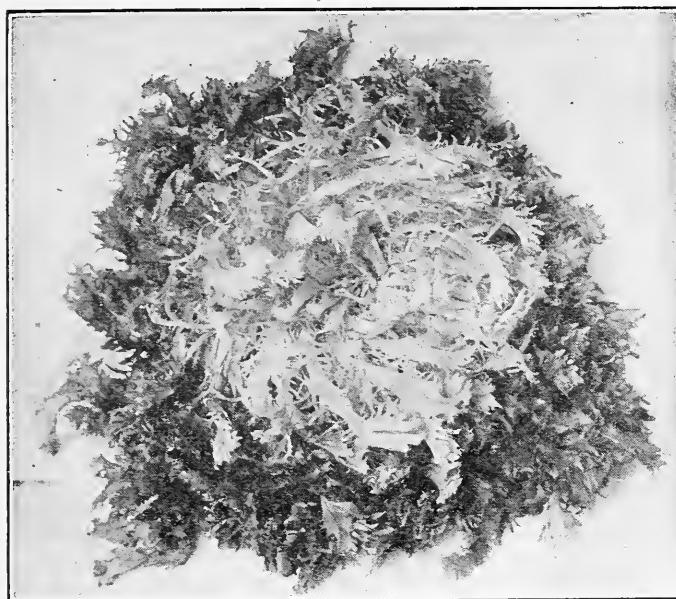
ENDIVE

(See Page 5 for Prices)

One of the best salads for fall and winter use and sometimes used for greens, flavoring soups and stews. It may be grown at any season but is more generally planted for fall.

CULTURE—For early use, sow about April 15th; for late use, sow in August, in drills 18 inches apart and when large enough thin out to about one foot apart. When nearly grown tie the outer leaves together over the center in order to blanch up the heart. By covering fresh plants every few days a succession may be kept up. $\frac{1}{2}$ -oz. to 100 ft. row.

150 GREEN CURLED—One of the hardiest and best varieties for general use. It has deep green leaves, beautifully cut and curled and is early blanched; is very crisp, tender and of fine flavor.



GREEN CURLED ENDIVE

151 BROAD LEAF BATAVIAN (Escarolle).—A variety having broad, more or less twisted, waved, bright green leaves with thick white mid-ribs. It is much larger in growth than other sorts and has a flavor all its own. The inner leaves form a very solid, clustering head; are blanched a beautiful deep, creamy white; crisp, tender and of fine flavor. Very highly esteemed by the French and popular wherever

152 MOSS CURLED—A compact growing variety forming large dense clusters, finely divided, medium green leaves. When properly blanched, is rich creamy white and tender. An ornamental variety for salads.

GARLIC

A bulbous rooted plant of the Onion family, with a strong penetrating odor; very desirable for flavoring both cooked vegetables, soups, etc., as well as salads. Garlic does not have seed and is planted from small bulbs only. Plant same as Onions in rows 8 to 12 inches apart; set bulbs 4 inches apart in the row, covering 2 inches deep. When the leaves

turn yellow, take up the bulbs, dry in the shade and store in a dry loft as you would onions. **Bulbs, $\frac{1}{4}$ lb., 15c; 1b., 40c.**

HERBS

(See Page 5 for Prices)

Most of these should be sown in April, and can be transplanted when large enough. The seed is small and should be sown in drills and firmed down. Keep clean of weeds. Most of them are to be cut when in bloom, wilted in the sun, and dried thoroughly in the shade.

153 ANISE—A hardy Annual, grown principally for its aromatic seeds, which are used in cordials and sometimes for medicine.

154 BASIL (Sweet)—A hardy aromatic Annual used for flavoring soups and sauces, to which it gives a strong flavor.

155 CARAWAY—Cultivated principally for its seeds, which are used for flavoring bread, cakes and confectionery. The leaves are sometimes used in soups and for liquids. Plants grow about $2\frac{1}{2}$ feet high. Does not seed until the second year.

Caraway Seed for Flavoring.

156 CORIANDER—The seeds are used mainly for flavoring confectionery.

157 DILL—A popular aromatic annual Herb which is largely used for seasoning pickles, sauces, soups, etc.

158 FENNEL (Sweet)—A hardy Perennial, the seeds of which are used for flavoring sauces, especially for fish; as well as confectionery and cakes.

159 LAVENDER—A hardy Perennial growing about 2 ft. high. The flowers of which are used for perfumes. It is also distilled for making lavender water.

160 MARJORAM (Sweet)—An Annual used mainly for seasoning.

161 SAGE—One of the most extensively used plants for seasoning. It is a hardy Perennial growing about 15 to 18 inches high.

162 SAVORY (Summer)—A hardy aromatic Annual, largely used for seasoning, especially a dressing for soups and sausage.

163 THYME—A hardy Perennial, plants fragrant and spicy. Used for flavoring; as a tonic, also as a dressing for fresh bruises.

KALE

(See Page 5 for Prices)

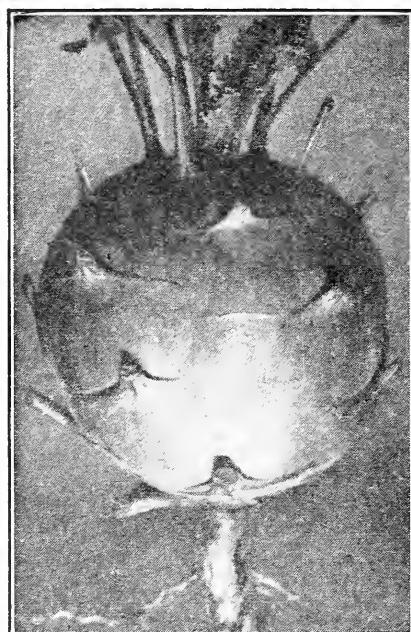
A popular crop for fall, winter and spring use as greens. In the South it is boiled with bacon. Excellent for garnishing. In addition to its table uses it is a splendid soil improver and very nutritious as a grazing crop for cattle, hogs or sheep.

CULTURE—In this section it is usually sown broadcast from the middle of August to the middle of October at the rate of 3 to 4 pounds to the acre. Scotch kale is sown earlier and when very early is usually sown in drills. In the spring seed can be sown in February March and April. Spring sown Kale requires 5 to 6 pounds to the acre and Smooth Kale should have 6 to 8 pounds to the acre. The ground should be prepared cleanly and harrowed as finely as possible. Seed can be covered with a smoothing harrow or roller but not covered too deep.

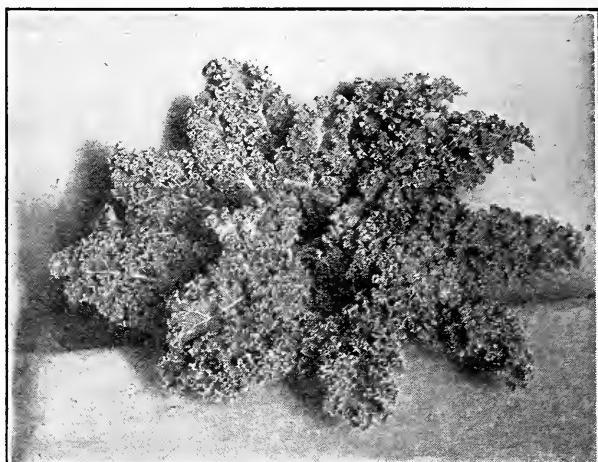
164 DWARF GREEN CURLED—An old standard winter variety in this section. Leaves are light green in color, tinged with purple, beautifully curled, and when properly cooked make a very palatable dish of greens. In this locality, will stand the winter.

165 DWARF CURLED SIBERIAN—A vigorous growing sort of spreading habit, its green foliage having a distinctive bluish tinge or bloom. Very hardy and a favorite in many sections both for greens and extensively grown for forage.

166 DWARF GREEN CURLED SCOTCH (OR NORFOLK)—A finely curled, spreading, low growing variety, which is very popular around many trucking centers, especially in the East. The leaves are attractive, bright green color and beautifully curled which make it excellent for garnishing. It must be sown earlier than other sorts; usually from July until end of August or can be sown in March. Can be sown either in drills or broadcast.



WHITE VIENNA KOHL RABI



DWARF GERMAN CURLED KALE

167 SPRING OR SMOOTH KALE—A hardy, quick growing, smooth leaf variety. It can be sown in the fall in September and will generally stand the winter but is more largely used for sowing in the spring on account of its quick growth. It can be cut in five to six weeks from sowing.

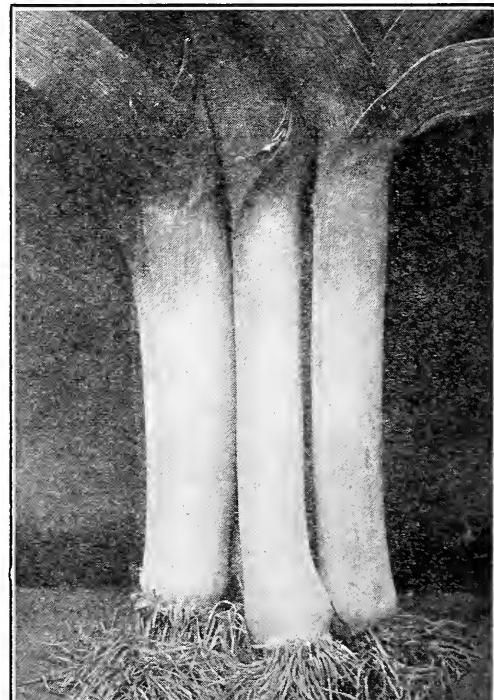
KOHL RABI

(See Page 5 for Prices)

A vegetable intermediate between a Cabbage and a Turnip which combines the flavor of both. It forms a turnip-shaped bulb above ground which is boiled and served like Turnips. If used when young is tender and a very desirable vegetable.

CULTURE—For early use sow in hot beds and transplant. Out of doors sow in open ground the first part of April in rows 18 inches apart; thin out or transplant to 6 inches apart in the row. Cultivate same as Cabbage. It can also be sown the latter part of June or in July for fall use. One ounce will sow 300 feet of drill.

168 EARLY WHITE VIENNA—Very early with small tops, bulbs good size, light green or whitish. It is the best sort for general use, has white tender flesh of excellent quality.



LEEK

(See Page 5 for Prices)

Generally considered superior to onions for flavoring. Leaves flat, stems very large, cylindrical and bulbous.

CULTURE—Sow as early in the spring as the ground will permit, in rows 12 to 15 inches apart, covering about $\frac{1}{2}$ inch deep. Thin out to 6 inches apart and draw earth to them in cultivating. Leek can be transplanted like onions if desired. For very white and tender Leek transplant when six inches high, setting 4 inches apart in trenches about 2 feet apart and earth like celery. One ounce will sow about 100 feet of drill.

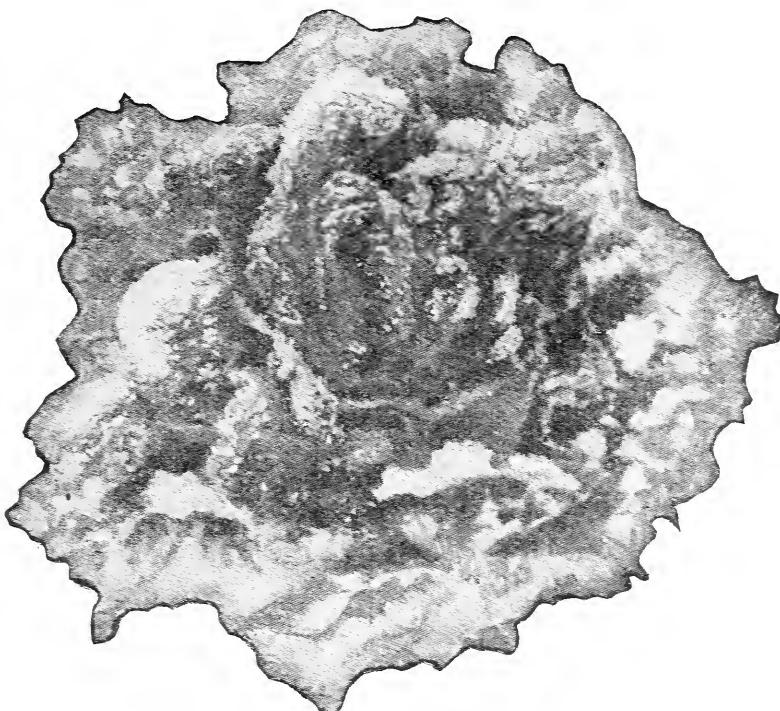
169 LARGE FLAG—A hardy variety of good quality which is popular in all sections.

170 LARGE ROUEN—Stems large but comparatively short. Leaves very broad covered with a whitish bloom. This variety remains in condition for use a long time.

LARGE FLAG LEEK

LETTUCE

(See Page 5 for Prices)



BLACK SEEDED SIMPSON LETTUCE

CURLED OR LOOSE-HEAD VARIETIES

171 GRAND RAPIDS—The most popular variety for green house forcing, especially for shipping. It is of quick growth, hardy and not liable to rot; remains in good condition several days after being fit to cut. Plants are upright and uniform; leaves finely crimped at the edges. It is the heaviest loose-headed sort, will stand shipping better and is a very attractive variety.

172 BLACK SEEDED SIMPSON—The best sort for nearby markets and for home gardens on account of its superior quality. It forms a large, loose head, very bright green, nearly white, and is exceedingly tender. Is largely used for forcing under glass and a superior sort for earliest crop.

173 EARLY CURLED SIMPSON (White Seeded)—Makes a large, loose curled head similar to Black Seeded Simpson. Particularly adapted for sowing thickly and cutting when the plants are young. Leaves light green, slightly frilled, much blistered, crisp, sweet and tender.

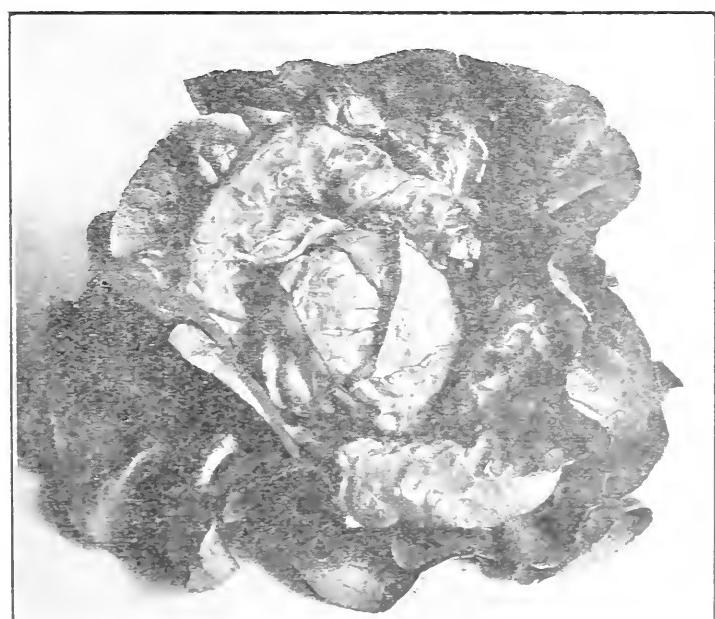
174 EARLY CURLED SILESIAN—An old and very popular variety which is probably the earliest and quickest sort grown. Plants loose, not quite so large as Black Seeded Simpson. Popular for outside.

175 EARLY PRIZE HEAD—A large clustering, non-heading sort, most excellent for home gardens as it is very early. It is too tender for shipping. Leaves are finely curled and crumpled, bright green tinged with brownish red; very crisp and tender.

Cabbage or Heading Varieties

176 ICEBERG—A beautiful lettuce, with large curly leaves of a bright, light green, with a very slight reddish tint at the edges. Handsome heads, unusually solid because of the natural tendency of the large, strong leaves to turn in, which also causes thorough blanching. Crisp, tender and fine flavor.

177 TOP NOTCH—A distinctly improved variety of Big Boston and one of the very best for forcing or out of door culture. Under favorable conditions the heads will measure 10 to 12 inches across; are bright, lively green color without the brownish marking of Big Boston. The heart and inner leaves are pure white. It is deliciously flavored, very tender, of splendid quality and highly recommended for extensive market growing or home use as it will be found thoroughly reliable in heading and the most profitable of this type.



TOP NOTCH LETTUCE

A popular crop in all small gardens and one of the most profitable for market gardeners both for winter forcing and for summer growing providing the weather is seasonable or irrigation can be done.

CULTURE—For Winter Forcing.—Sow from September to February; the curled varieties about every four weeks apart or the heading sorts about six weeks apart. As one crop is cut, another should be ready for planting.

Out of doors—For early spring crop plants can be started in hot beds and transplanted to rows one foot apart, setting the plants 6 to 8 inches apart in the row. Later sow seed in rows 12 to 15 inches apart and thin out or transplant if desired leaving the heads to stand 6 to 8 inches apart in the row. A succession of varieties should be kept up from early summer until late fall.

One ounce sows 300 feet of drill. Three pounds one acre. One ounce produces about 4000 plants; an acre requires about 50,000 plants set 8 x 15 inches.

INSECT REMEDIES—For the green lettuce worm and green measuring worm, which eat the leaves, spray with a solution of Hellebore in water, at the rate of 1 lb. of Hellebore to 15 or 20 gallons of water. For green lice, spray with a solution of Tobacco Extract. In green houses fumigation with Nico-Fume Liquid or Tobacco stems, will be effective. In frames, fumigation with Nico-Fume Paper is best. Tobacco stems or Tobacco dust applied on the soil or around the beds, is an effectual preventative of green lice.

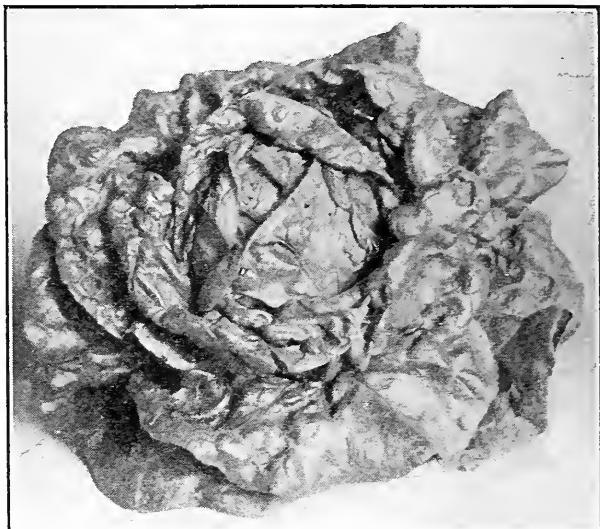
LETTUCE CABBAGE OR HEADING SORTS—CONT'D

(See Page 5 for Prices)

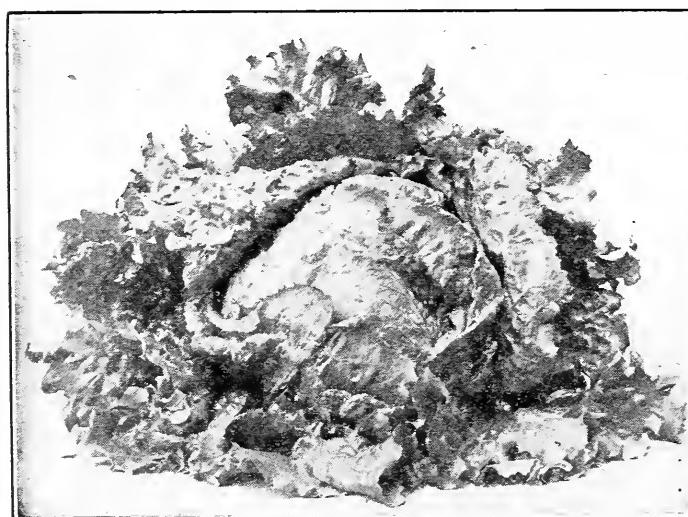
178 BIG BOSTON—This has long been a favorite sort with market gardeners and truck growers and in some sections is planted almost exclusively. It forms a large compact head, forces well in frames and thoroughly satisfactory for outdoor crops in the spring or very late head crop in the fall. Leaves are broad, comparatively smooth, color bright light green. The heads slightly tinged with reddish brown.

179 CALIFORNIA CREAM BUTTER—A splendid sort for second early crop which has glossy, deep green leaves, the outer ones slightly splashed with brown. It forms a large, very solid head, rich light yellow in color, very tender and buttery. A reliable sort for market or home gardens.

180 PHILADELPHIA BUTTER—Similar in characteristics and growth to California Cream Butter. Leaves however, are somewhat more spotted with yellowish brown blotches. A very tender, crisp and satisfactory sort for early planting.



CALIFORNIA CREAM BUTTER



IMPROVED HANSON

181 IMPROVED HANSON—A splendid summer heading sort and probably the most popular of its class in this section. The plant is compact, forming a large cabbage like head which remains in good condition a long time. The outer leaves are yellowish-green, somewhat crumpled with a large distinctive mid-rib. The inner leaves white, sweet and tender. This variety is a little coarse in quality but on account of its large size and general reliable summer heading qualities, is profitable and desirable for summer use.

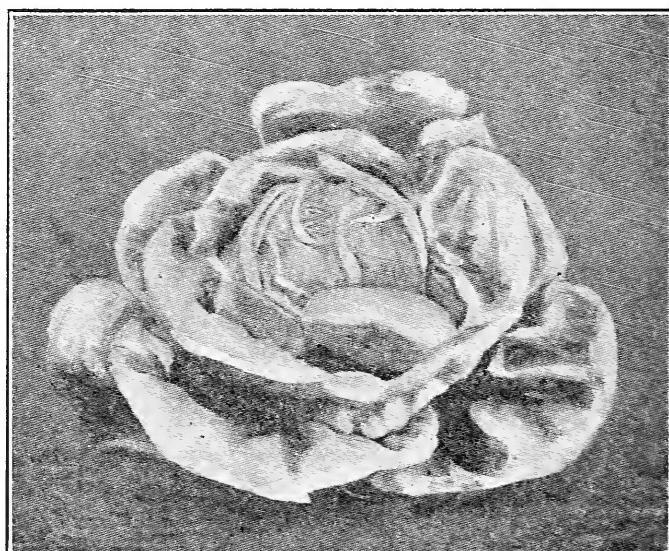
182 SALAMANDER—A splendid summer sort producing large, compact, light green heads of excellent quality. The leaves are broad, thick, somewhat crumpled, closely overlapped so that the inner ones are finely bleached. Withstands hot weather remarkably well. Is of fine quality and one of the best summer sorts for home use.

183 DEACON—An excellent summer sort, producing heads of large size which are very firm and remain in condition for use a long time. Plants are compact with few outer leaves. Inner leaves bright, rich yellow; fair quality.

184 NEW YORK LETTUCE—Blanches beautifully. Crisp, Tender and Free from Bitterness.

It produces immense heads, often 15 and 16 inches across, and weighing enormously. The interior is beautifully blanched, creamy-white, crisp, tender and delicious, being absolutely free from any trace of bitterness. It is a very large, robust growing variety, rooting deeply, resisting hot, dry weather, very slow to run to seed and a sure header under most trying conditions.

185 COS LETTUCE (ROMAINE)—A distinct variety, having long spoon-like leaves, which are folded into a conical or sugarloaf head. Very much esteemed for salads, especially in Europe. Seed should be sown out doors very early, thinning out to three or four inches apart. When near maturity tie the leaves over the head for blanching.



DEACON

MUSK MELON OR CANTALOUP

(See Page 5 for Prices)

These can be successfully grown in nearly all gardens. If the soil is very rich and heavy, Salmon-Fleshed sorts will produce the best. If light or loamy, Green-fleshed sorts will succeed admirably. Among green-fleshed sorts the "Queen of Gems" is one of the earliest and best. In salmon flesh sorts, "Burrell's Gem," "Paul Rose" are among the best.

One ounce plants 50 hills; two pounds to one acre. Plant in May for early crop; in June for late crop.

CULTURE—Seed is planted in hills 6 ft. apart, putting 10 to 12 seeds to the hill and covering one inch deep. If land is not rich, use well rotted manure or a little sheep manure mixed with the soil. When danger of insects is over, thin out to 4 plants to the hill.

INSECT REMEDIES—For the striped beetle which is troublesome, dust plants lightly with Slug Shot, air-slacked lime, tobacco dust or even dry road dust. If the plants get too rank, pinch off the end of the vines after they have set fruits. Cultivate shallow and often. Green flesh melons will become more netted if about 200 lbs. of salt are broadcasted to the acre.

Packets, ounces and $\frac{1}{4}$ lb., mailed free; for $\frac{1}{2}$ lb., remit 3c, for pound 5c extra if to be sent by mail.

GREEN FLESHED VARIETIES

186 **HONEY DEW**—Its name has been well chosen, as it is about as sweet as Honey. The average size is about 6 inches in diameter, and they weigh five to six pounds. The skin is smooth with little netting, and of creamy yellow when ripe. The flesh is a beautiful green next to the outside rind shading to light green at the center. It is very thick, melting, fine grained and can be eaten almost to the rind, and the seed cavity is quite small.

187 **HENDERSON'S BUSH**—A new sort which grows in bush form, and is radically different from other sorts. There is a distinct shortening of the stem between joints and while the plant has just as many leaves as the older sorts the vines do not run; hence, it can be grown in hills 3 ft. apart. The fruit is small, resembling Jenny Lind and is excellent in quality and splendid flavor. It is very prolific and especially desirable on rich, light, well manured soil—hence, valuable for market gardeners having very expensive land and all small home gardens.

188 **QUEEN OF GEMS**—This is undoubtedly one of the best of the green fleshed types on account of its extreme earliness, large size, extra fine quality and large yields. It is two weeks earlier than the Rocky Ford and more productive, a little more netted and somewhat larger. It is almost entirely rust and blight proof, very productive and the fruits are sweet and luscious. Fruits are oval, ribbed, thick green flesh tinged with yellow. We cannot recommend this too highly for market or family use.

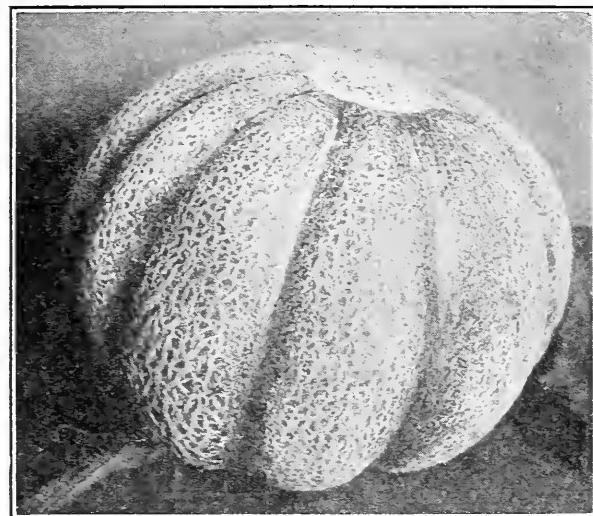
189 **ROCKY FORD**—A well known small variety which has become famous. It is oval, with green flesh, very sweet and highly flavored. Vines vigorous and productive.

190 **NETTED GEM**—A variety which has been introduced nearly 30 years and still retains its great popularity. The fruits are medium size, oblong, ribbed, netted, very firm, solid, and stand shipping remarkably well. Vines vigorous and productive.

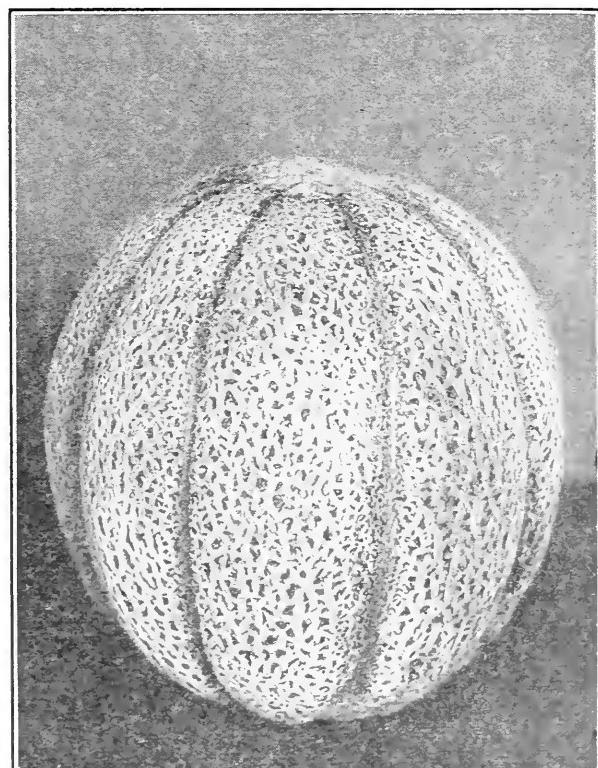
191 **GREEN NUTMEG** (or Jenny Lind)—Fruits small somewhat flattened, deeply ribbed and netted. Flesh green, exceedingly sweet. An extra early variety and on account of its size, a desirable table melon. Vines are small but vigorous and productive.

192 **ACME OR BALTIMORE MARKET**—Similar in shape to Rocky Ford but larger. Flesh is thick, green, well flavored and sweet. Very productive and a sure cropper. One of the most desirable of the large or medium size melons.

193 **EXTRA EARLY HACKENSACK**—Two weeks earlier than the Large Hackensack and produces medium sized fruit, somewhat flattened, evenly deep ribs with coarse netting. The flesh is green, slightly tinged with yellow, juicy and sweet.



HENDERSON'S BUSH MUSK MELON



QUEEN OF GEMS

MUSK MELON or CANTALOUPE

GREEN FLESHED VARIETIES—Cont'd

(See Page 5 for Prices)

194 LARGE HACKENSACK (or Turk's Cap)—An old and well known sort which produces very large green-fleshed fruits which are nearly round and flattened. Flesh, green, thick, juicy and sweet.

195 CASABA OR PERSIAN—An old variety which still retains its popularity. Produces very large oblong melons, heavily ribbed. Flesh green, slightly tinged with yellow, thick, rather coarse, but juicy.

SALMON FLESHED VARIETIES

196 BURRELL'S GEM—Similar in size and shape to the well known Rocky Ford. Has thick, deep salmon flesh, tender, juicy and sweet. One of the most popular sorts for shipping and a favorite with large growers as it produces well, being exceedingly vigorous and productive.

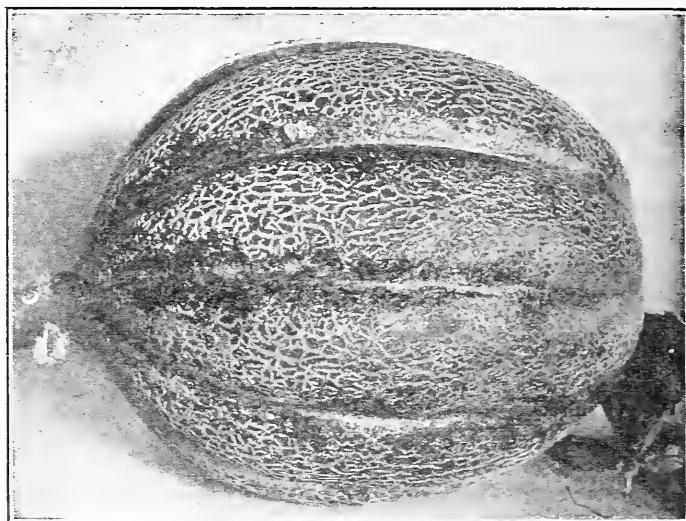
197 EMERALD GEM—An early yellow fleshed melon of small to medium size which is one of the very best for home gardens. Vines vigorous and productive. Fruits globe shaped, flattened, somewhat irregularly ribbed and very slightly netted. Outer skin dark green when young, becoming slightly tinged with yellow. Flesh, deep salmon yellow, thick, melting and very highly flavored.

198 TIP TOP—A popular sort with market gardeners, producing very large sized melons, ribbed but almost smooth skin. Flesh salmon, very deep, a little coarse but exceedingly sweet and luscious. Especially desirable for very rich soil and one of the most profitable for market.

199 PAUL ROSE (Petoskey)—A yellow fleshy sort of excellent quality. Fruits are oval, slightly ribbed and densely netted, somewhat resembling Netted Gem but larger. Flesh is orange yellow, very thick, firm and sweet and highly flavored. Vines vigorous and productive.

200 OSAGE OR MILLER'S CREAM—A medium salmon fleshed melon of excellent quality. Fruits are oval, dark green, slightly ribbed, tinged with grey. Flesh salmon color, thick and highly flavored. A splendid sort for late or main crop, especially for market.

201 BANANA—A long, smooth skinned variety, growing something in the shape of long squash. Fruit about 12 inches long, salmon flesh, which is very sweet, luscious and tender. Much esteemed in some localities.



PAUL ROSE CANTALOUPE

WATERMELON

(See Page 5 for Prices)

Watermelons do best on old, rich soil, which is not too freshly manured, hence when making the hills, well rotted manure should be used, and it is better to prepare them some time ahead before planting the seed. If manure cannot be obtained, use good commercial fertilizer or sheep manure mixed with the soil. Some of the largest and best crops we have ever seen were produced on sod land, using 200 lbs. of fertilizer per acre in the hills.

One ounce plants 20 hills; 4 lbs. per acre. Plant early in May or for later use, in June.

CULTURE—Treat as for Musk Melon, but give more room, say 10 or 12 feet apart each way.

INSECT REMEDIES—Same as for Musk Melon.

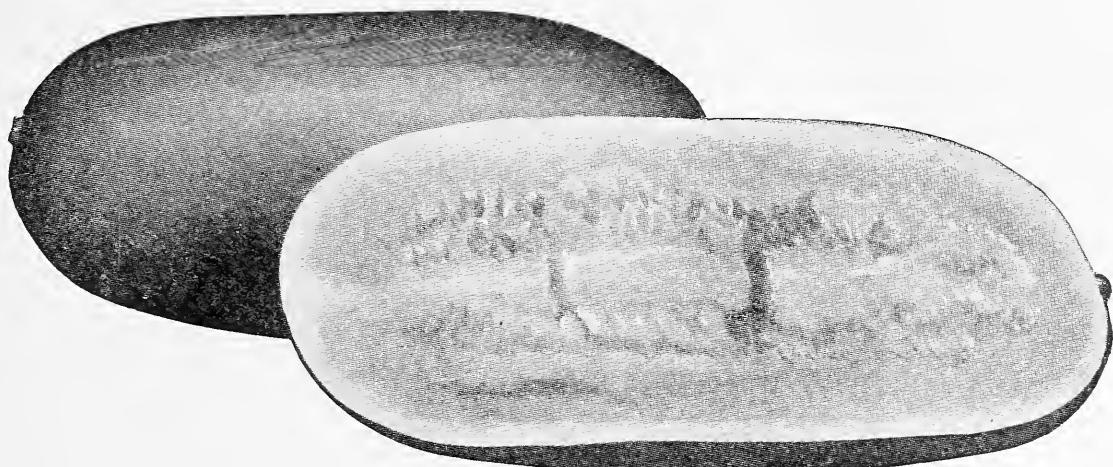
202 TOM WATSON—A long, dark green melon, which has become exceedingly popular on account of its large size and general fine qualities. Vines are vigorous and productive. Flesh rich bright red, very juicy and sweet. Most suitable for nearby markets, family gardens, and a favorite with truckers, as it stands shipping well and retains its color and good quality a long time.

203 KLECKLEY'S SWEET—One of the best flavored melons in cultivation and one of the best for home use or nearby markets. It is long, very dark green with thin rind. Flesh deep red, of fine delicious flavor.

204 FLORIDA FAVORITE—A well known popular sort which has long been a favorite for home use and market. Ripens early, has dark green rind, striped with light green. Flesh light crimson, exceedingly sugary, fine and tender. Very delicious and highly recommended either for home market or family use.

WATERMELON—Cont'd

(See Page 5 for Prices)



HALBERT'S HONEY

205 KOLB'S GEM—One of the older sorts producing oval melons and all large size. The rind is exceedingly hard and firm, being irregularly marked with mottled stripes of dark and light green. Flesh is bright red, solid, a little coarse but sweet. One of the best round sorts for shipping as it will handle better than almost any other sort.

206 SWEETHEART—A very popular shipping sort particularly in the South. Fruits are very large, oval, very heavy with thin rind which is of light green color, slightly veined with darker shade. Flesh bright red, firm, very sweet and the fruits remain in condition a long time after ripening. A splendid sort for market or main crop, being of fine appearance and sells readily.

207 PEERLESS OR ICE CREAM—A splendid early sort for home or market gardens. Vines moderately vigorous, hardy and very productive. Fruits are oblong, medium size, bright green finely veined with darker shade. Flesh bright scarlet, crisp and very sweet.

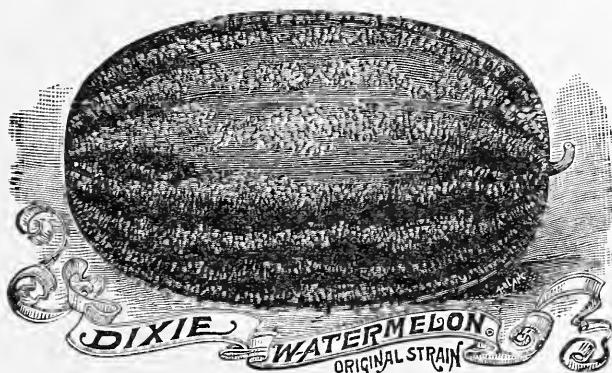
208 GRAY MONARCH OR LONG LIGHT ICING—Fruits uniformly long and large, oblong in shape. Color light green slightly veined with darker shade; flesh deep rich red of splendid quality.

209 GYPSY (or Georgia Rattlesnake)—One of the most popular of the older sorts especially in the South. Fruits are large, very long, of light green color distinctly striped and blotched with darker shade. In the South it is very highly esteemed and especially desirable for growing and shipping. The rind is remarkably thin though very tough; hence, it stands shipping well. Flesh most tender, sweet and luscious. Fruits are uniformly good quality.

210 HALBERT'S HONEY—A long dark green melon of moderate size but such splendid quality that it is especially desirable for market or home use. The rind is very thin. Flesh bright crimson and so crisp and tender that ripe melons will split ahead of the knife in cutting. We especially recommend this for general planting as it is very productive, of excellent quality and a splendid seller.

211 PHINNEY'S EARLY—The earliest of all melons, producing fruits small in size but very productive. Rind is dark green, fruits oval, flesh sweet, crisp and tender.

212 DARK ICING—A round or oval shape which has long been a favorite for home use and in nearby markets. Melons are medium sized, oval, dark green in color with bright red flesh which is extremely tender and sugary. A splendid early sort and highly desirable for home use or for early crop for market.



213 DIXIE—A variety similar in marking and general characteristics to Kolb's Gem but instead of being oval it is long—hence, more desirable on the general markets. It has all of the good characteristics as a shipper. Vines vigorous and productive.

214 MAMMOTH IRONCLAD—One of the older sorts which still retains its popularity. It is oblong, almost blunt points; olive green color shaded with darker green stripes. Skin is tough which makes it a good market melon. Has bright red flesh, sweet, tender and juicy.

215 CUBAN QUEEN—One of the largest oval melons. Color light green shaded with darker stripes, similar to Rattlesnake. Quality fair. One of the best for exhibition purposes.

216 PRIDE OF GEORGIA—A large, oval melon, dark green color. Good sort for market or home uses.

217 CITRON—Used for preserves and pickling, only, as the fruit cannot be eaten. The melons are small, round and will keep quite a long time; seed, red.

MUSTARD

(See Page 5 for Prices)

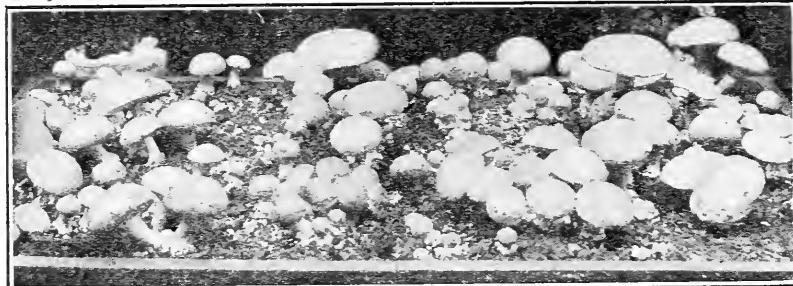
Quite popular in the Southern States for boiling as greens. The Southern Giant Curled is becoming popular for shipping. White and Black Seeded are used for pickles and medicinal purposes. Black Seeded is also used as a poultry tonic.

CULTURE—Sow broadcast or in drills 12 inches apart in March or April or in the fall in September or October. Cut when 3 inches high. One ounce sows about 80 feet of drill. An acre requires 4 to 6 lbs.

218 SOUTHERN GIANT CURLED—A large growing sort with succulent, pungent leaves of sweet flavor. The best variety for use as greens.

219 WHITE—Used for greens and the seed largely used for pickles and flavoring.

220 BLACK.



MUSHROOMS IN A BED

MUSHROOM SPAWN

Mushrooms can be grown in cellars, sheds, under benches in green houses or hot beds. They are also planted outside in pastures or sod. It is a very profitable crop both for forcing or a field crop. Our cultural instructions are somewhat limited but we can furnish a booklet of more extended information on "How to Grow Mushrooms." Price, 10c.

One brick will spawn about ten feet square.

CULTURE—In preparing a mushroom bed, take three parts fresh stable manure, free from straw, and one part of good pasture soil. Mix thoroughly together and let it stand until the heat has sunk to about 90 degrees. Make the bed from this mixture about four feet wide, eight inches deep, and any desired length. As soon as the temperature of the bed is about 70 or 80 degrees, the spawn may be inserted in pieces about the size of a walnut, and six inches apart each way. When the spawn is diffused through the whole bed, which will be in about ten days from planting, cover with two inches of fine loam and press down firmly. Over this place a layer of straw about four inches thick. Do not water unless the surface gets extremely dry, and then only with water at a temperature of 80 degrees. When gathering the crop, twist them off at the roots and do not use a knife. Cover the hole with soil to keep insects away from the root. Mushrooms can be grown in a great variety of situations; under the benches in a green house, a dark room, cellar, stable or elsewhere.

221 ENGLISH MUSHROOM SPAWN—Well known and popular. Put up in bricks weighing about 1½ lbs. Per brick, 25c; 5 bricks, \$1.00.

222 PURE CULTURE MUSHROOM SPAWN—Superior to the English and much preferred by commercial growers. Per brick, 25c; 5 bricks, \$1.00.

Postage on Mushroom Spawn, 6c per brick extra.

NASTURTIUM

This is grown not only as an ornamental plant, but the green seed pods are very much esteemed, making excellent capers and delicious pickles.

223 TALL MIXED—The best variety for kitchen garden purposes; grows 4 to 6 ft. high and the vines can be supported, if desired, by stalks, frames or brush.



WHITE VELVET OKRA

OKRA OR GUMBO

(See Page 5 for Prices)

One of the most popular Southern vegetables and largely used for flavoring soups, stews, gravies and canned tomatoes.

CULTURE—Sow in drills 2½ feet apart after the weather has become settled and warm. Thin out to 18 inches apart in rows. To keep for winter, slice the pods when young in narrow rings and string or hang in the shade to dry.

One ounce sows about 40 feet. 10 lbs. per acre. Plant in April or May. Matures in 60 to 70 days from planting.

224 WHITE VELVET—An early maturing and very productive variety growing about 3½ feet high. Pods white, long, smooth and very tender. This is not so deeply ribbed as the green sorts and is very popular in some sections.

225 DWARF PROLIFIC—One of the most popular sorts in the South, growing 3 feet high, producing large pods deeply ribbed, tender, fine flavor.

226 PERKINS' MAMMOTH—Plant dwarf; are very attractive. Produces beautiful, long, slender, deep green pods, which remain tender a long time. An extra choice variety.

ONION SETS

There are three distinct classes of these. **Potato or Hill** onion sets can be planted in the fall from August to November and produce both green spring onions, large onions and sets. **Perennial or Egyptian Top** onion sets are planted in the fall or very early in the spring and produce green spring onions early in the spring. **Bottom Sets** or regular onion sets of commerce are small onions which were previously grown from seed. These, set out early in the spring or in the South in the fall, produce one large onion from each set, towards the end of June or first of July. Pickling onions (which is a larger size bottom set) are used in some localities for fall planting to produce early green spring onions. All onion sets are hardy and can be set in the open ground as early as the weather will permit. They are usually planted in rows 15 inches apart—4 inches apart for small sets and 6 to 8 inches apart for potato sets. Potato onion sets can also be planted in the spring. It takes about 16 bushels of bottom onion sets per acre, and 20 to 25 bushels of potato onion sets, according to the size and distance apart. Cultivate with hoe until maturity.

If to be sent by mail, add 6c per qt. for postage.

Prices of onion sets are subject to market changes. Prices on application.

YELLOW DANVERS—Probably the most largely planted of all onion sets, producing an early crop of fine quality onions.

WHITE OR SILVER SKIN—Pure white of mild flavor and usually preferred for private gardens.

AUSTRALIAN BROWN—A very hardy variety of medium size which is extremely early and of good quality.

YELLOW POTATO OR HILL—A mild, yellow variety, producing several large onions and clusters of sets.

EGYPTIAN OR PERENNIAL TREE (Called Top Onion Sets)—For spring or summer green onions.

ONION

(See Page 6 for Prices)

One of the most nutritious and healthy of vegetables, having excellent medicinal qualities and most useful for flavoring salads, soups, meats, etc. It can be produced easily from either sets or seed and is one of the most satisfactory vegetables in the garden.

A good crop of onions is 400 to 800 bushels per acre. A good crop of onion sets 300 to 400 bushels per acre.

CULTURE—Growing Large Onions from Seed—Seed is sown in rows 15 inches apart as early in the spring as ground can be worked and covered about $\frac{1}{2}$ inch deep. The Planet Junior Seed Sower is the implement for this and it requires 4 to 5 pounds per acre. Cultivate with a wheel hoe as soon as plants are up and hand-weed. After getting a good start thin onions to about 4 inches apart. Constant weeding and cultivation are required throughout the season. Rich soil, most heavily manured is required to grow large crops of onions. The mucklands of Ohio, Indiana and Illinois are particularly suited to this crop but fertilization has to be kept up to produce a large and profitable crop. Onions grown from seed mature much later than those grown from sets.

Growing Sets—To produce commercial Onion Sets known as **Bottom Sets**, the seed is sown in rows 11 to 12 inches apart in fine clean soil at the rate of 40 to 60 lbs. per acre. Cultivate with a wheel hoe and hand weed. The sets are ready for pulling in July and are cleaned and stored in an airy loft. For pickling onions, one ounce sows 150 ft.; 15 lbs. per acre.

230 LARGE RED WETHERSFIELD—A splendid red variety, very popular in the East. Bulbs somewhat flattened, thick and very large. Skin deep purplish red, flesh white tinged with purple, moderately fine grained, strong but pleasant flavor. It is medium early and well suited to rich soils. Is a good keeper and productive.

231 YELLOW FLAT DANVERS—An early or main crop variety of medium size, light coppery yellow color. Bulbs flattened but are quite thick with small necks. Ripen down evenly and keep well. This is the standard and most popular sort sown for yellow sets.

232 YELLOW DUTCH OR STRASBURG—Similar to the well known Yellow Danvers except that it is somewhat lighter in shade and very much esteemed in the East.

233 YELLOW GLOBE DANVERS—One of the most extensively grown yellow onions. Bulbs are of large size, uniformly globe shape with small necks. Ripen evenly. Flesh creamy white, crisp, mild and excellent flavor. Onions have a yellow coppery color, showy and handsome.

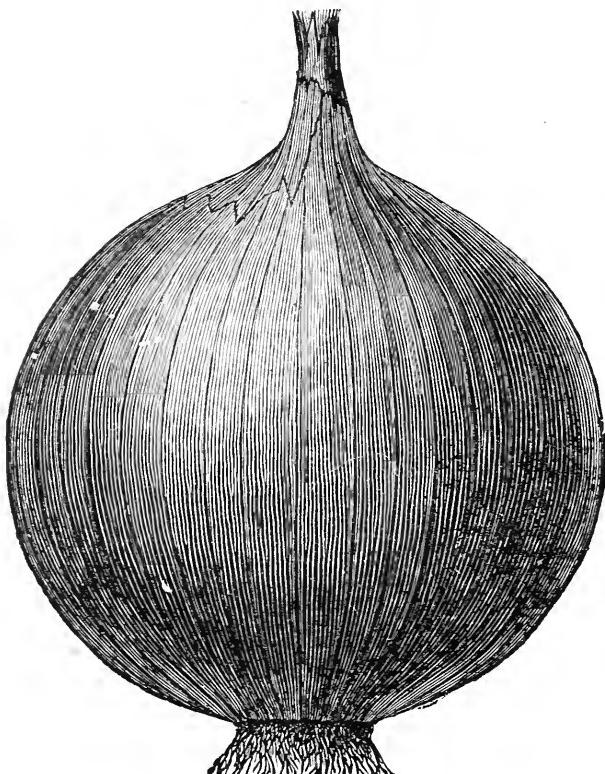
234 OHIO YELLOW GLOBE—A very much esteemed and popular sort grown extensively in this state. Particularly suited to rich soils. Onions somewhat more flattened at the base than Yellow Globe Danvers and more blunt at the top. Color rich yellow tinged with orange. Flesh creamy white, mild and fine flavor. One of the best for main crop planting and shipping as it is an excellent keeping sort.

235 AUSTRALIAN BROWN—A very hardy variety of medium size which is extremely early and of good quality. The outer skin is darker in color than Yellow Globe Danvers. Onions are very solid, excellent quality and will stand handling better than almost any sort.



OHIO YELLOW GLOBE

ONION—Cont'd



PRIZE TAKER ONION

236 PRIZE TAKER—A large European sort which has become thoroughly acclimated to this country and produces enormous onions the first season from seed. Skin is yellowish brown; flesh creamy white, very mild, tender and of excellent quality. By early sowing in hot beds and transplanting, Prize Taker Onions as large as 4 lbs. have been grown in a season. Its large size and attractive appearance make it a popular sort for selling on fruit stands at fancy prices.

237 SILVER SKIN OR WHITE PORTUGAL—A well known and favorite variety making medium size onions of mild flavor with beautiful, clear white skin. Largely used for sets and pickling onions. Mature 10 days earlier than White Globe. Bulbs are nearly round when of bunching size but somewhat flattened when mature. One of the best flattened sort for general use.

238 WHITE GLOBE—A fine early or main crop sort for home gardens. Flesh is firm, fine grained, white, mild and more desirable for cooking than the yellow or red sorts. Bulbs are globe shape, full at the shoulder, round at the base, keep well and a good market variety.

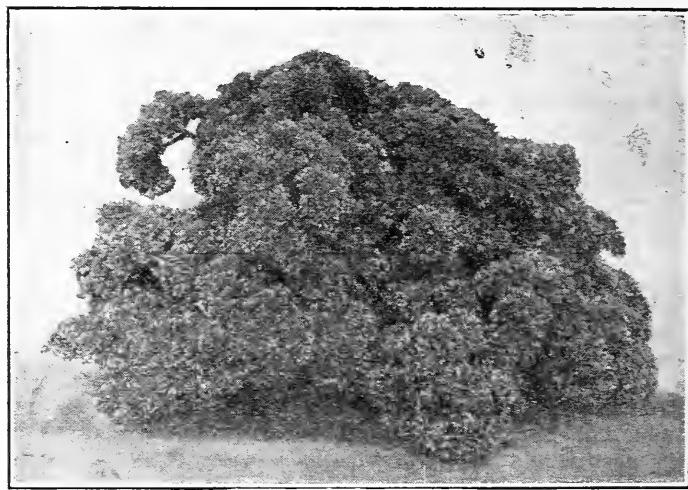
PARSLEY

(See Page 6 for Prices)

Easily grown and useful for so many purposes, such as garnishing, seasoning salads and for ornamental purposes. Grown in the garden as edging it is both ornamental and profitable.

CULTURE—Seed is sown in rows $\frac{1}{2}$ inch deep and one foot apart. Cover firmly but not deep. As it is slow to germinate, usually taking 3 to 4 weeks, soaking in water is desirable. One ounce sows 150 ft. of drill. For winter growing it can be sown or transplanted to cold frames or to hot beds and is usually profitable.

239 CHAMPION MOSS CURLED—A beautifully curled and crimped variety which is much preferred. It is vigorous, compact in growth and excellent for garnishing—a handsome decorative plant. One of the most popular for market and home gardens.



MOSS CURLED PARSLEY

240 HAMBURG OR ROOTED—This produces an edible root resembling a small parsnip both in color and shape. Flesh white, flavor similar to Celeriac. Foliage is about the same as plain parsley. Roots are extensively used for flavoring soups and stews and can be dug late in the fall and stored in sand for winter use.

241 PLAIN—A hardy variety having very dark green leaves which are flat, deeply cut but not curled. It is a little stronger in taste and much esteemed for flavoring soups, stews, as well as for drying.

Remember The J. Chas. McCullough Seed Company's Location:

STORE AND SALES DEPARTMENT:
228-230-232 E. 4th St.

TELEPHONE, MAIN 5640
Connecting all Departments

WAREHOUSE AND SEED CLEANING PLANT:
5th, Lock and Eggleston Aves.

PARSNIPS

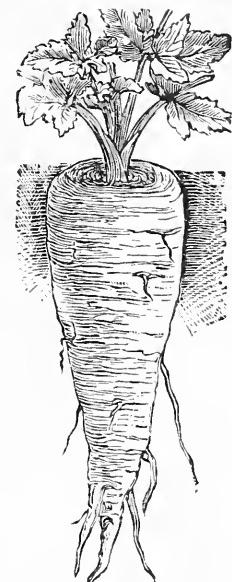
(See Page 6 for Prices)

A popular vegetable for fall and winter use and of wonderful value for stock feeding. On rich loamy soil produces immense crops, more nutritious than turnips and very valuable for dairy cattle. It will remain in the ground without protection all winter and can be dug as required until it begins to go to seed in the spring; or if desired, store in pits or cellars.

CULTURE—Sow in April in drills 18 inches apart, covered lightly. When the plants are about 2 inches high, thin out from 4 to 6 inches apart. One ounce will sow 200 ft. of drill. 5 to 6 lbs. to the acre.

242 SUGAR OR HOLLOW CROWN (Guernsey)—One of the best and most popular varieties for the table. Roots long, uniform in shape, have a smooth white skin, tender, and of good quality.

243 LONG WHITE—This variety is very hardy and will keep well throughout the winter without protection. The roots are long, smooth, creamy white, tender and fine flavor. Splendid for table use and suitable for stock feeding.



SUGAR PARSNIP

PEAS GARDEN VARIETIES

(See Page 6 for Prices)

Add 5c to pint and 10c to quart prices if by mail. Or for Zone rates, one pint weighs about 15 oz., one qt. about 30 oz.

One of the most popular crops in the home garden and usually a profitable one for market gardeners where labor for picking can be readily obtained. One pint sows 75 ft., 1½ bu. per acre. The earliest sorts can be planted just as soon as the ground is in condition to work. Wrinkled Varieties a little later as they are tender. For succession, plant different sorts. For fall crop sow in August.

One pint planted every two weeks will yield a succession and is enough for a medium sized garden.

CULTURE—Peas succeed best in light, rich, loamy soil which has been manured the previous season. Sheep manure or good commercial fertilizer in the drills mixed with the soil will give excellent results. Sow about one pt. per 100 ft. or 120 lbs. per acre. The early dwarf varieties can be planted in rows 2 ft. apart. The tall varieties in rows 3 ft. apart. Peas can be staked with sticks or wire netting on stakes. Tall varieties yield more abundantly than dwarf. Cultivate and keep clean, working the earth toward the vines rather than away from them.

Packets and ½ pints postpaid. If to be sent by mail add 5c to pint prices and 10c to quart prices.

For Zone Rates. 1 pint weighs about 15 oz. 1 qt. about 30 oz.

EARLY ROUND OR SMOOTH

A Selected Strain from Maud S.

244 GMC EXTRA EARLY—One of the best strains of extra early peas; producing abundantly. Vines grow 2 to 2½ ft. high; pods 3 to 3½ inches long, well filled with fine delicious quality peas. Not only is this probably the earliest of all garden sorts but its yield is so abundant that it is the most profitable variety of all for market gardeners, in addition to being the best early sort for home gardens. Seed is white, smooth, medium size. Vines thrifty, vigorous, robust and extremely productive.

245 ALASKA—A favorite sort with Southern truckers, producing long straight pods which will stand shipping, remain green longer than white seeded sorts. The seed is blue, medium size. Vines about 2½ ft. high, fairly vigorous and usually produce good yields. Pods long, straight and attractive appearance. This has long been a popular sort, is of fair quality and well known.



GMC EXTRA EARLY PEAS

PEAS—EARLY ROUND OR SMOOTH—Cont'd

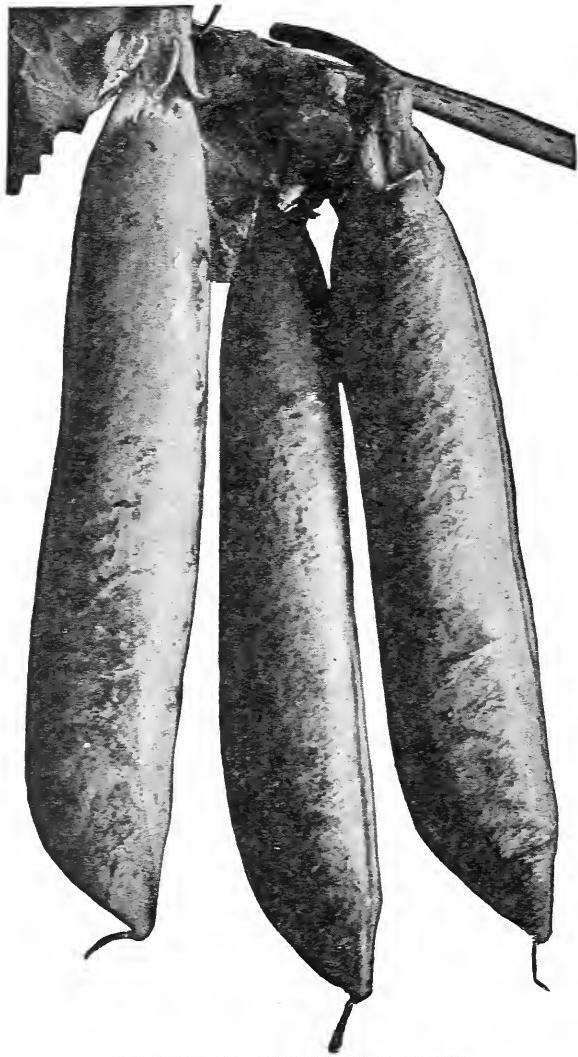
(See Page 6 for Prices)

246 NEW CLAUDIT or MAMMOTH ALASKA—A very superior variety for market gardeners and truck growers. Peas are the same color as the Alaska but average about $1\frac{1}{2}$ times as large and pods about in the same proportion. In quality it is fully equal to any smooth pea. Pods remain green a long time after picking so that it is excellent for shipping. Vines usually $2\frac{1}{2}$ ft. high, bearing 7 to 9 peas to the pod. We strongly recommend this sort for extensive planting as wherever grown it supersedes Alaska by market growers.

248 PETIT-POIS or FRENCH CANNER—These are very much esteemed on account of their small size and delicious flavor. They bear moderately early; vines are vigorous, prolific and grow 3 to 4 ft. in height. Pods are long, slim and contain 8 to 10 peas of tender, delicate quality.

249 TOM THUMB—A smooth white seeded sort, dwarf growth. Vines averaging 10 to 12 inches high, very hardy and fairly prolific but especially valuable in that they do not require staking.

PEAS—EARLY WRINKLED SORTS



GRADUS OR PROSPERITY PEAS

These are of very much finer and superior quality to the Smooth sorts, consequently are much to be preferred for private gardens or market uses, except for very earliest crops. They are not quite as hardy as the smooth varieties—hence, should be planted just a little later.

250 GRADUS (or Prosperity)—One of the very best early wrinkled large podded peas. The pods are fully as long as Telephone. Vine similar in appearance and does not grow so tall, being of medium height about 3 to $3\frac{1}{2}$ feet. The Pods are 4 to $4\frac{1}{2}$ inches long, pointed, handsome and one of the most attractive of the early wrinkled sorts. Peas very large, splendid quality and a beautiful light green color. This has been one of the most popular varieties in cultivation.

251 THOMAS LAXTON—A comparatively new early wrinkled sort of superior merit. Vines vigorous, growing about 3 ft. high; have dark, vigorous foliage, similar to Gradus but hardier and more productive. Pods about 4 inches long, square ends, similar to Champion of England but larger, longer and darker. Peas are fine quality and it is destined to become one of the most popular of the early sorts on account of its productiveness.

252 LAXTONIAN—One of the largest podded of the dwarf wrinkled peas. Pods are about 4 inches in length, of a beautiful dark green color, similar to Gradus in shape, of splendid quality and mature a little earlier. Vine averages 15 to 18 inches in height, vigorous, productive and has dark green foliage.

253 LITTLE MARVEL—An extra early dwarf wrinkled sort particularly suited to home gardens. Vines average 15 to 18 inches high, vigorous, dark green foliage. Peas are borne together in pairs of twos. Though comparatively a new sort it has become exceedingly popular on account of its large productive yield.

254 AMERICAN WONDER—A favorite dwarf, early, wrinkled Pea which is highly esteemed and splendid for family use. Vines about 9 inches to 1 ft. high, covered with well filled pods medium size, about $2\frac{3}{4}$ inches long, containing 5 to 8 large, exceedingly sweet, tender peas.

255 NOTT'S EXCELSIOR—A few days later than the American Wonder. Pods about one-quarter larger. It is remarkably hardy and can be planted almost as early as smooth sorts. Height 1 to $1\frac{1}{2}$ ft. One of the best for home gardens and a profitable variety for market gardeners.

256 SUTTON'S EXCELSIOR—A very large podded dwarf variety. It is exceedingly vigorous, unsurpassed in quality; pods mature nearly as early as Nott's Excelsior but are broader and about the same length. Height 15 to 18 inches.

257 MCLEAN'S LITTLE GEM—This has long been a favorite among early dwarf peas. It matures a little later than American Wonder, is somewhat taller in growth and a little more prolific. Vines vigorous and productive, growing 15 to 18 inches high; pods $2\frac{3}{4}$ inches long, crowded with peas of fine quality.

PEAS—Cont'd

MEDIUM CROP VARIETIES

(See Page 6 for Prices)

258 McLEAN'S ADVANCER—A productive variety largely used by canners and market gardeners. Vines $2\frac{1}{2}$ to 3 ft., bearing long, broad pods about 3 inches long, of fine appearance.

259 BLISS' EVERBEARING—A popular sort, with stout vines of medium height, about $2\frac{1}{2}$ ft. high bearing at the top 6 to 10 broad pods of medium size about 3 inches long. If picked as they mature they grow out more branches, thus keeping up succession. Peas are fine flavor, tender and superior quality.

260 DAISY OR DWARF TELEPHONE—Similar in general characteristics to the well known Telephone. Pods $4\frac{1}{2}$ to 5 inches long, dark green; peas large, of superior quality, tender and sweet. Vines about 3 ft. high.

LATE OR MAIN CROP SORTS

261 DUKE OF ALBANY—A very large wrinkled variety, similar to Telephone in growth but darker in color of foliage and pods. Vines tall, about $4\frac{1}{2}$ to 5 ft., vigorous, strong growing. Pods large size, $4\frac{1}{2}$ to 5 inches; peas tender and sweet. On account of its productiveness, dark green color and general attractive appearance, it is destined to become one of the leading market sorts and its fine qualities recommend it for home use for main crop.

262 IMPROVED PRIDE OF THE MARKET—A medium early pea bearing very long, pointed pods of dark green color. Vines medium height, $2\frac{1}{2}$ to 3 ft. vigorous and very productive. A favorite sort in many sections for market. Peas blue, almost smooth and of fair quality.

263 TELEPHONE—One of the leading peas with market gardeners on account of its vigorous, tall growth and productiveness. Vines about 4 ft. high, foliage light green, producing an abundance of pointed pods, very large and light green. Peas large, tender, very sweet, excellent flavor. A splendid sort for home gardens and profitable for market.

264 PRINCE EDWARD—An English strain of the Telephone type, which is selected and bred especially for the size of the pods, which are so large that they are magnificent. The Peas are of good quality, have a fine green, splendid flavor, and the vines bear very heavy crops. For exhibition purposes or market it is especially desirable. Vines 4 to $4\frac{1}{2}$ ft.; pods $4\frac{1}{2}$ to 5 inches; long dark green.

265 CHAMPION OF ENGLAND—One of the older varieties which still retains its popularity on account of its productiveness and general good qualities. Vines tall, 4 to 5 ft. pods large about 3 inches long, borne in abundance. Peas tender and exceedingly sweet. A favorite sort for home gardens.

266 WHITE MARROWFAT—Vines about $3\frac{1}{2}$ ft. high. Vines exceedingly productive. Pods long, well filled; peas smooth, rather coarse quality. Sown in many localities for market but not satisfactory for home gardens.

267 BLACK EYE MARROWFAT—More prolific than the White Marrowfat. Vines somewhat stronger and about the same height. Quality coarse, valuable only for market purposes.

268 MELTING SUGAR (Edible Pods)—These are used in the same manner as Snap or String Beans, the pods and peas being sliced and boiled. Pods very large, $4\frac{1}{2}$ inches long, broad, curved and twisted. They are when young, very tender, stringless and fine flavored. Vines are tall, $4\frac{1}{2}$ to 5 ft. high, with light foliage; are very strong growing and prolific. We strongly recommend more extensive planting of these fine quality peas. They are very popular in Europe and should become more generally known in this country.

INOCULATION FOR PEAS—Excellent results will be obtained by treating the seeds of Peas with Inoculation Bacteria before planting. It can be easily done. We have it put in convenient size for small gardens. (See page 80.)



DUKE OF ALBANY

PEANUTS

(See Page 6 for Prices)



VIRGINIA PEANUTS

For medium light, loamy or sandy land, peanuts are one of the most profitable crops that can be grown. They yield very largely—yields of 50 bushels per acre being reported on land too poor to plant in corn. In addition they yield quite largely of nutritive forage, and will yield ordinarily about a ton of excellent dry forage per acre, in addition to the crop of nuts.

Peanuts should be shelled before planting. They should be planted in May or early June, in rows about 2 to 3 feet apart dropping the nuts 8 to 10 inches apart, 1 in a hill. Cover 1 or 2 inches deep. Cultivate 3 or 4 times with a cultivator, so as to loosen the earth and keep down weeds, and at the last working, with a small turn-plow throw the dirt to the nuts. Do not cultivate too late in the season, as late cultivation is likely to injure the formation of the nuts. It is also advisable to make an application of lime, scattering it on top of the row just after planting, and to use a top-dressing of land plaster just after the last working. The use of lime and land plaster as above mentioned is recommended by the most successful growers.

In harvesting, plow the peanuts and then stack around stakes with the leaves outside.

269 IMPROVED VIRGINIA—Large size nuts which are very popular and a fine productive strain.

270 SPANISH—A very prolific variety producing small size nuts, largely grown for hog feeding. Both vines and roots are

pulled up, fed green or cured, making excellent dry food.

STIMUPLANT
Makes a
WONDER GARDEN

PEPPER

(See Page 6 for Prices)

STIMUPLANT
Makes a
WONDER GARDEN

CULTURE—For earliest crop sow in hot bed in February or March and transplant to open ground in May, setting plants about 15 inches apart in rows 2½ ft. apart. Later crops can be sown in cold frames. Cultivate and keep free of weeds. Sheep manure or some good commercial fertilizer applied broadcast around the plant and hoed in when they are about 6 inches high will produce an enormous increase and improvement in yield.

One ounce makes from 1200 to 1500 plants.

271 CHINESE GIANT—An enormous variety sometimes attaining 6 inches in diameter. It is very even in shape, flesh thick and sweet. Very handsome and of superior quality for stuffing. Plants are vigorous and fairly prolific. Very highly recommended for home use and one of the most profitable to grow for market purposes.

272 LARGE BELL OR BULL NOSE—A large early sort of mild flavor. Plant vigorous, 2 feet high, very productive, and ripens its crop early and uniformly. A splendid sort for salads, mangoes and for stuffing purposes. Color deep green which becomes bright crimson when ripe.

273 RUBY KING—A very large and attractive sort, deep green color when young, bright red when ripe. Flesh thick and mild flavor. One of the best table sorts.

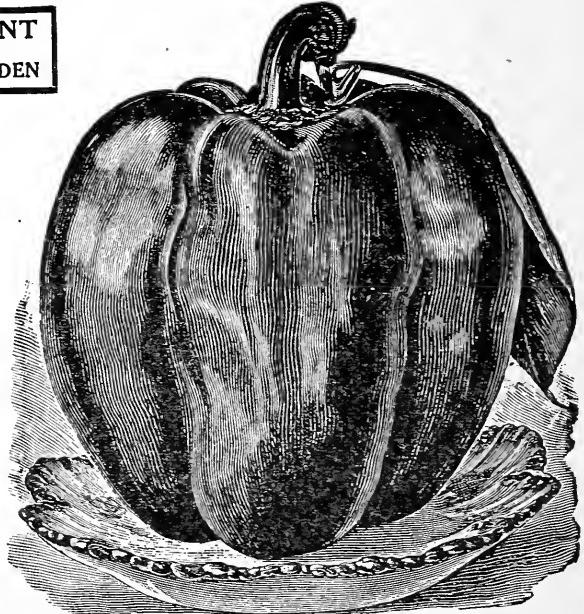
274 LONG RED CAYENNE—A well known medium early sort having slender, twisted and pointed fruits about 4 inches long. Extremely strong and pungent—hence, valuable for seasoning. Generally known as Lady Finger Pepper.

275 SWEET MOUNTAIN (or Spanish)—Late maturing and an attractive sort. Fruits very large and long, frequently 7 inches in length and 2 inches in diameter; flesh mild, very thick and excellent quality.

276 GOLDEN DAWN—A good main crop sort, thick flesh, sweet and tender, valuable for salads or stuffing. Color bright green when young, orange yellow when ripe.

277 RED CHILI—Pods about 2 inches in length, $\frac{1}{3}$ to $\frac{1}{2}$ inch in diameter, tapering to a sharp point. Exceedingly pungent—hence, valuable for flavoring and for Tabasco Sauce. The small bright red pods are borne in great profusion making it an ornamental plant for the garden.

278 PIMENTO—The fruit is of good size, medium length and attractive color. The flesh is thick and solid, mild and of fine flavor. Desirable for salads and stuffed peppers. The plants are vigorous and upright, about two to two and one-half feet high, with short, broad, dark green leaves. The fruit is deep green when young, becoming deep red as it matures.



CHINESE GIANT PEPPER

PUMPKIN

(See Page 6 for Prices)

These make excellent food for stock and can be grown in corn fields at practically no extra expense. We urge larger planting, as they are very nutritious and afford a change in ration.

CULTURE—Generally planted in corn after the last working and gathered after corn has been shocked. For field crop plant in May or June in hills 8 ft. apart, about 8 to 10 seed to the hill and cultivate until the vines get strong; then thin out leaving 2 or 3 of the strongest plants in each hill.

One ounce plants 20 to 30 hills according to the size of the seed. Two or three pounds to the acre.

279 KING OF THE MAMMOTHS—An enormous flattened variety sometimes attaining 100 lbs in weight. It is especially desirable for exhibition purposes, Halloween parties and will find ready sale in most large cities at good prices.

280 JAPANESE PIE—Fruit medium size. Skin light yellow, covered with fine grained netting. Flesh salmon, very thick, sweet, fine flavor and one of the best sorts for cooking.

281 TENNESSEE SWEET POTATO—Medium size of creamy yellow color with light green stripes. Flesh thick, fine grained, dry, brittle and of excellent flavor. Unsurpassed for pies and custards.

282 CASHAW or CROOK-NECK—Fruit fairly large with crooked neck. Skin creamy white with green stripes. Flesh yellow, very thick, rather coarse but sweet. A productive and popular sort in most sections.

283 LARGE CHEESE—A popular sort in this section for table uses and stock. Fruits somewhat flattened; skin mottled light green and yellow. Flesh yellow and of tender quality.

284 KENTUCKY FIELD—Grown generally throughout the central section for stock feeding. Fruits very much flattened, creamy yellow color; flesh orange. Very productive.

285 CONNECTICUT FIELD—A small round variety, popular in extreme northern sections on account of its earliness.

SELECT SEED POTATOES CHOICE NORTHERN GROWN STOCKS

These are grown for us in the extreme northern parts of Minnesota, Wisconsin and Michigan and can be relied on as being true to name and first quality.

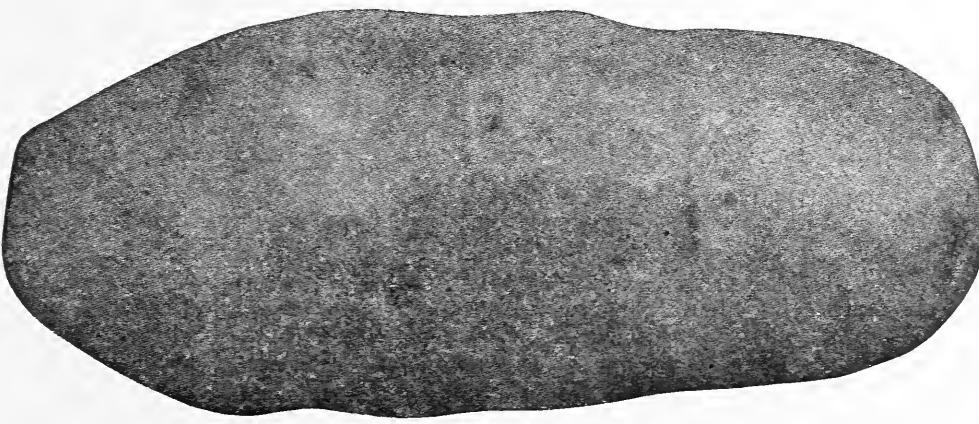
Prices on Potatoes are constantly changing, subject to market fluctuations. Please write for current market prices when ready to purchase.

All potatoes are sold in $2\frac{1}{2}$ bu. sacks.

CULTURE—Potatoes are planted in rows 36 to 40 inches apart, dropping the potatoes 12 to 16 inches apart in the rows. Sheep Manure or some other good commercial fertilizer should be used in the drills even if the land is heavily manured as it will pay wonderfully well. It takes about 1 pound of fertilizer to 30 to 40 feet of drill, 400 to 600 lbs. per acre. It takes 9 to 12 bushels to plant an acre according to size of potatoes and distance of rows apart. Plant for early crop as soon as the ground can be gotten in condition. For late crop, in July or 1st of August is best.

INSECT REMEDIES—For the Potato Bug, Paris Green is most effective remedy and on large areas had better be applied with a Leggett's Champion Paris Green Gun or Beetle Duster. For a small garden, mixing with land plaster, 1 lb. to 100 lbs. of plaster and dusting; or if sprayed use one pound of Paris Green to 100 gallons of water. Slug Shot can be used in small gardens if desired. For preventing Blight and increasing growth of vines and yield of potatoes, spray with Bordeaux Mixture two or three times. It has wonderful results. Paris Green can be used mixed with it if desired.

Unless seed is free from scab and other diseases, it should be sterilized or disinfected. This can be done by soaking the uncut seed in a solution of formaldehyde for 2 hours and then drying. The formaldehyde is to be diluted at the rate of $1\frac{1}{2}$ oz. for each 3 gallons of water. The formaldehyde can be obtained in drug stores, is of slight cost, and is well worth the effort required to use it.



EARLY ROSE POTATO

EARLY OHIO—10 days earlier than Early Rose. The tubers are oval, have few eyes rather shallow. Smooth skin, white, slightly flushed with pink. It is an extra fine quality cooking potato; makes good sized yields and is a favorite in this section and many others, especially where planted on light and loamy soil.

EARLY ROSE—An old favorite sort which has long been popular for family use and still planted in many sections as the

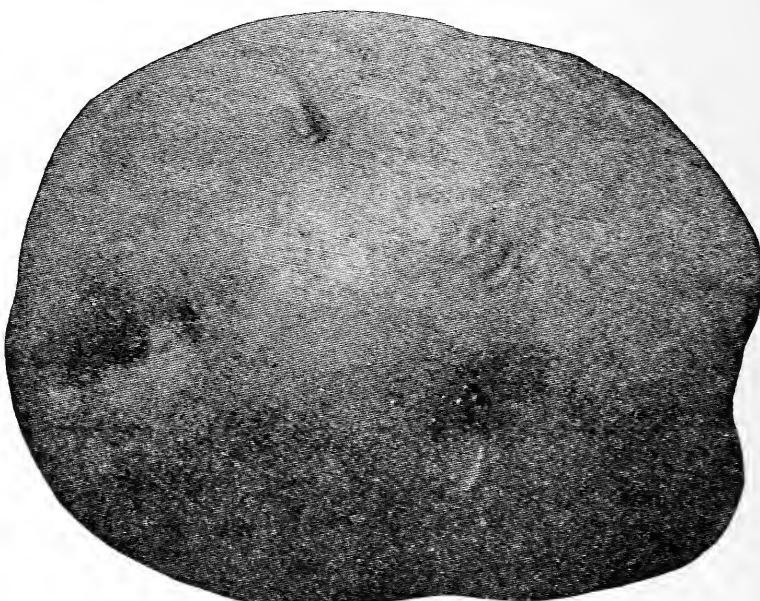
main variety for early crop. Tubers are oblong, light pink at the bud end but mostly white. It is of finest quality, cooks very mealy and one of the best for family use.

SEED POTATOES—Cont'd

BEAUTY OF HEBRON—Similar in appearance and growth to Early Rose from which it was a sport. It is not quite so pink at the bud end. Skin white, flushed with rose, cooks very mealy; excellent flavor and popular for home use and some markets.

IRISH COBBLER—This has become an exceedingly popular and profitable variety for growing for market. Tubers are oval with smooth white skin, have few eyes rather deep. Grows to large size and produces enormous yields. Vines are thrifty and a reliable heavy yield can nearly always be expected. An excellent sort for market purposes and produces good crops both early and late.

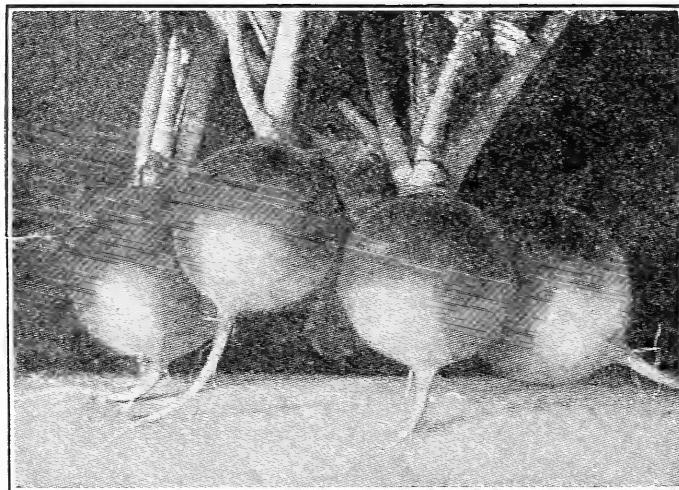
CARMAN No. 3—One of the most desirable of all potatoes for second early or late crop, producing enormous yields of extra fine quality potatoes. It is round, slightly flattened, pure white; has beautiful smooth skin, shallow eyes and is a fine table variety as well as extra fine keeping sort. Vines are vigorous and productive. We heartily recommend this to all growers for market or for family use as second early or late sort.



IRISH COBBLER POTATOES

SWEET POTATOES

We carry in stock the best sort of seed grown by reliable planters. Varieties, Yellow and Red Jersey, Red Bermuda and Southern Queen. Prices variable. Write for quotations. Cannot be shipped until about April 1st.



EARLY WHITE TIP SCARLET

of the handsomest of the turnip varieties and a general favorite in nearly all large markets. It is excellent as a forcing sort or for earliest planting outdoors. Roots nearly round, slightly flattened on under side. Color very deep scarlet with distinct white tip. Flesh white of best quality. We strongly advise more extensive planting of this sort in this locality.

287 **EARLY WHITE TURNIP**—Similar to Early Scarlet Turnip but little more flattened and slightly earlier maturing. It has very small tops, is of quick growth, suitable for forcing or early planting. Color clear white; flesh crisp and tender.

288 **GOLDEN GLOBE**—A splendid sort for second early crop as it does not get pithy easily and produces tender, crisp roots. Skin golden yellow, flesh white. Roots uniformly globe shaped, 2 inches long and $2\frac{1}{4}$ inches in diameter when mature.

289 **WHITE STUTTGART**—A splendid summer sort, producing large roots often 4 inches in diameter, top shaped. Skin is white, flesh white and crisp and does not become pithy until very late. Valuable for both early summer and fall crops.

290 **FRENCH BREAKFAST**—A small olive-shaped variety about $1\frac{1}{2}$ inches long, which is very quick growing. Color beautiful deep scarlet shading to white at the tip. Top small. Quick maturing and splendid for very earliest crop.

RADISH

(See Page 6 for Prices)

FINEST SEED STOCKS

One ounce sows 100 ft. of drill. If broadcasted requires 10 to 12 lbs. per acre. For forcing in frames sow in January or February. Out of doors, sow from March to June for early and summer crop. For late, sow from July to September. Early sorts mature and are ready for the table in 21 to 30 days from sowing.

CULTURE—Quick growth is essential for tender, crisp radishes. Hence, rich soil and plenty of moisture are essential. They can be sown at intervals of ten days to two weeks for early use or grown as a catch crop between rows of beets, lettuce, onions, etc. When forced they require plenty of ventilation and moisture.

ROUND VARIETIES

286 **EARLY WHITE TIPPED SCARLET**

One of the handsomest of the turnip varieties and a general favorite in nearly all large markets. It is excellent as a forcing sort or for earliest planting outdoors. Roots nearly round, slightly flattened on under side. Color very deep scarlet with distinct white tip. Flesh white of best quality. We strongly advise more extensive planting of this sort in this locality.

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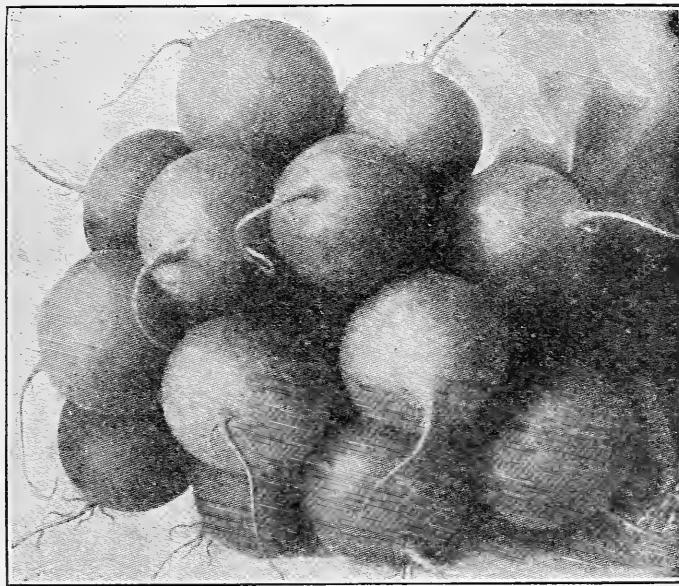
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RADISH—ROUND VARIETIES—Cont'd

(See Page 6 for Prices)



EARLY SCARLET TURNIP

291 EARLY SCARLET TURNIP—A well known sort producing round or oval roots of bright scarlet color. Flesh white, crisp and tender. Tops medium quick growth and desirable for early planting either outdoor or for forcing.

292 EXTRA EARLY SCARLET GLOBE—One of the very best and most showy radishes for earliest forcing or growing outside. Roots are slightly olive shape, rich bright scarlet color; flesh white and tender. It is fit to pull very early and is especially desirable for market gardeners on account of its showy qualities.

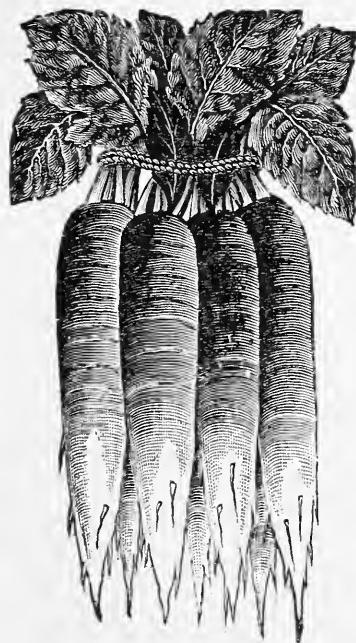
293 NON PLUS ULTRA—A fine, extra early forcing radish. Roots are small, nearly round, scarlet, tops very small. Flesh white, crisp and tender. One of the handsomest of the forcing sorts.

LONG VARIETIES

294 CINCINNATI MARKET—A popular sort in this section which has long been a favorite with market gardeners as it commands ready sale and good prices on this and nearby markets. It is a brilliant crimson color with white slightly tinged flesh, exceedingly sweet and tender. Grows 6 to 7 inches in length, straight and smooth and does not become hollow and pithy until very old. A remarkably fine sort for either market or home use.

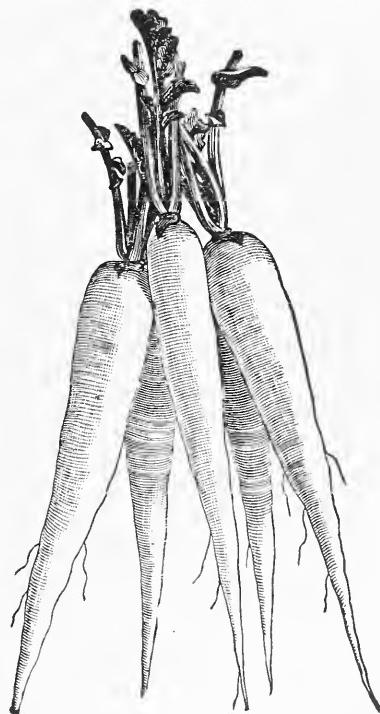
295 LONG SCARLET SHORT TOP—An old standard sort which is excellent either for home gardens or market. Tops short and small. Roots smooth, tender, uniform in shape; an attractive bright red color.

296 CHARTIER (Scarlet)—One of the best long Scarlets for second early summer or fall uses. Roots when fully grown, average 7 to 8 inches long and 1½ to 2 inches thick but even when only ½ inch thick are in good condition for table. It remains longer without getting pithy than any of the summer sorts. Color bright crimson shading to white at the tip.



CHARTIER RADISH

297 LONG WHITE ICICLE—The earliest of the long white varieties which is popular for forcing and earliest outdoor or early summer crop. It is productive and of excellent quality, crisp and tender. Roots are usually 5 to 6 inches long and about ½ inch in diameter with small tops.



WHITE ICICLE RADISH.

298 LONG WHITE NAPLES (or Lady Finger)—An early, moderately productive long white radish which is excellent for second early crop. Roots are pure white, slender and smooth, average 6 to 7 inches in length and ¾ inch in diameter at the thickest part. Flesh crisp and tender; tops medium size.

299 WHITE STRASBURG—One of the most popular and desirable of all long white radishes for second early or summer crop. Even when comparatively small it is fine quality and remains crisp and tender much longer than other early varieties. Roots when full grown are 1½ to 3 inches and 5 to 6 inches long, tapering. Tops medium; roots smooth, crystal white color, handsome, showy, crisp and tender and especially desirable for market or family use.

300 LONG WHITE VIENNA—An excellent second early variety producing roots 6 to 7 inches long, moderately thick, crisp and tender. Matures a little later than Cincinnati Market.

FALL RADISHES

(See Page 6 for Prices)

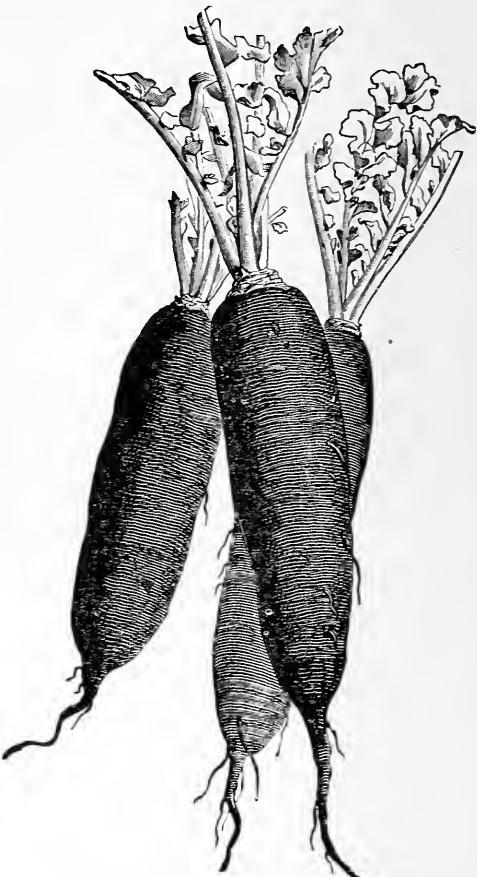
301 LONG BLACK SPANISH—A favorite late sort producing long, thick, almost black, roots, with white flesh of fine texture. Decidedly pungent but well flavored. Roots are usually 7 to 9 inches long, 2 to 3 inches in diameter and it is one of the best of the long sorts and especially adapted for winter use.

302 ROUND BLACK SPANISH—Roots top shaped, 3 to 4 inches in diameter; skin black, flesh white; excellent quality. Similar in characteristics and quality to the long sort but better suited for shallow or heavy soils on account of its shape.

303 SCARLET CHINA WINTER (Rose China)—A popular sort producing cylindrical roots, stub-rooted, blunt, at both ends. Is bright, deep, rose color shading to white. Skin smooth, flesh white, crisp, tender and pungent. Roots usually 4 to 5 inches long, 1½ to 2 inches in diameter. A splendid sort for fall and winter.

304 LONG WHITE SPANISH—Similar in general characteristics to Long Black Spanish except that the skin is pure white.

305 WHITE CHINESE (New Celestial)—A large stumprooted Radish with white skin and flesh. Can be sown from July 1 to August 15, and will keep in prime condition a long time; mild in flavor, brittle and never woody. Fine for market gardeners.



BLACK SPANISH RADISH.

RHUBARB

This is ready to use very early in the spring and has fine medicinal qualities in addition to being delicious for making pies or as stewed rhubarb.

CULTURE—Strong roots planted in the fall can be used in limited way the following spring. If planted in the spring had better remain one year to establish growth. Seed sown early in spring in drills 15 inches apart will produce fair roots by next season. A rich, moist soil is desirable. When a few inches high, thin out or transplant 12 inches apart. The following fall transplant to deep soil, manured well, 3 by 4 ft. and protect with litter or leaves. Never allow Rhubarb to go to seed as it weakens the plant.

One ounce sows about 75 ft.; 6 lbs. to one acre. About 12 roots are sufficient for an ordinary garden. Plant roots in March, April or November. Sow seed in April.

306 LINNAEUS—A favorite sort. Roots, however, will not come true from seed.

STIMUPLANT
Makes a
WONDER GARDEN

SALSIFY

STIMUPLANT
Makes a
WONDER GARDEN

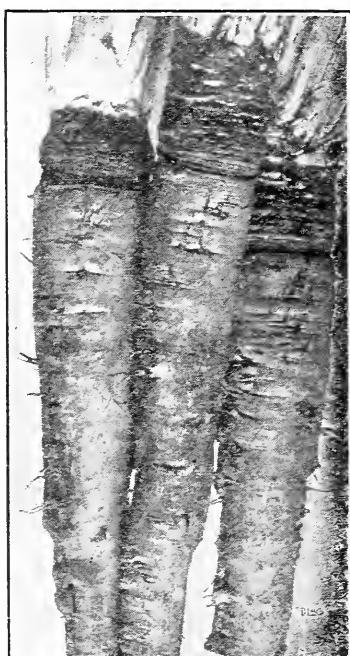
(See Page 6 for Prices)

A desirable winter vegetable which should be more extensively used throughout the Central States. Roots are palatable and can be served boiled or as fritters.

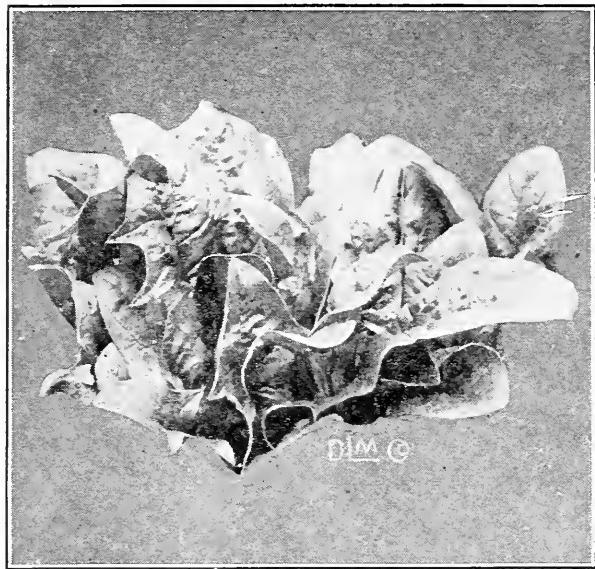
CULTURE—Sow in April in rows 18 inches apart, thinning out to 4 to 6 inches. Cultivate deeply and often. It is hardy and will remain out all winter but if desired can be dug before winter and stored in earth or sand to keep it from wilting.

One ounce sows 100 ft.; 6 to 8 lbs. are required per acre.

307 MAMMOTH SANDWICH ISLAND—The best sort which is much larger and a great improvement over the old-fashioned long sort.



SAND ISLAND SALSIFY.



BLOOMSDALE SPINACH

310 NEW ZEALAND—An especially desirable sort for summer use as it thrives during hot weather in any soil, rich or poor. It has tender shoots of good quality which may be cut throughout the summer. Plant becomes very large and spreading, leaves small, broad and pointed. Plant 3 or 4 seed in hills 2 ft. apart each way. Germination will be hastened by soaking in warm water 24 hours before planting.

SQUASH

Called Cymling in the South

(See Page 6 for Prices)

Summer squash requires one ounce to 30 hills. Winter varieties one ounce to 15 hills and 3 to 4 lbs. per acre.

CULTURE—Plant when the weather has become settled and the ground fairly warm. Bush varieties are planted 3 x 4 ft.; running varieties 6 x 8 ft.; about 4 to 6 seeds per hill and thin out later leaving the strongest plants about 3 to the hill. Hills similar to those made for Cucumbers with well rotted manure or fertilizer are best. Winter varieties may be stored in a moderately warm dry place of even temperature.

INSECT PESTS—For the Striped Beetle, see under Cantaloupe. For the Squash Bug, Tobacco Dust is sometimes a preventive but Kerosene Emulsion is the best remedy.

SUMMER VARIETIES

311 EARLY WHITE BUSH—A well known early variety, largely planted in the South both for market and home use. Color is creamy white with comparatively smooth surface, somewhat flattened and scalloped. Vines are bush, vigorous and very productive. Known as Patty Pan or Cymling in the South.



EARLY BUSH SQUASH.

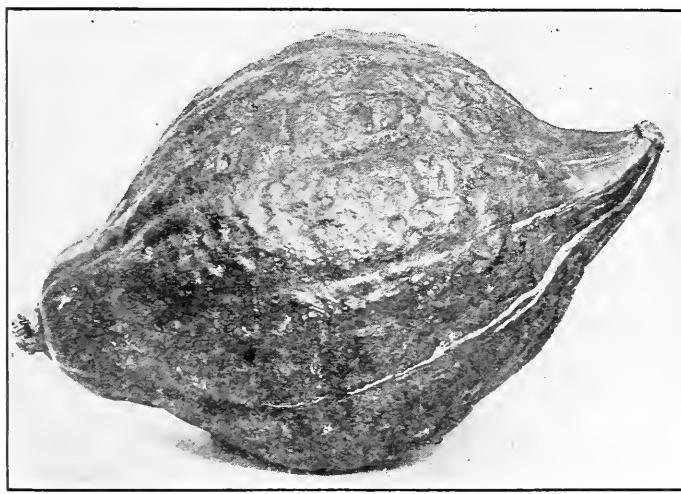
312 GOLDEN SUMMER CROOK-NECK—An old standard running sort having long fruit with uniformly crooked neck. Color is bright yellow; densely warty surface and very productive.

313 FORDHOOK—An excellent running sort for both summer and winter use. Vines are strong, vigorous growth and very productive. Fruits 8 to 10 inches in length, oblong, slightly ridged; smooth, yellowish skin. Flesh thick and light yellow in color.

WINTER VARIETIES.

314 GOLDEN HUBBARD—Similar to the old Hubbard excepting the skin is of a rich orange-red and heavily warty; flesh of extra fine quality.

315 WARTED HUBBARD—Similar in fruit and shape to Hubbard except that the surface is very much warty. It is very handsome in appearance and extra quality.



HUBBARD SQUASH

316 BOSTON MARROW—Vines strong, of running growth and very productive. Fruits large, orange skin, deep orange flesh, oval with hard shell; a superior winter sort.

317 VEGETABLE MARROW—A variety very much esteemed in England and many parts of the North. Vines are of bush habit, producing elongated fruit about 9 inches long of pale straw color changing to deeper shade. Flesh is white. Young and tender fruit when sliced and fried in oil makes a vegetable delicacy highly esteemed. Can be used as other squash; has an especially delicate flavor.

SPINACH

(See Page 6 for Prices)

Has long been one of the most popular of all greens for market gardeners and truck growers and in some sections is grown in enormous quantities. In this locality Spinach is sown broadcast in March or April for early crop and from July to September for fall and winter crop at the rate of about 10 to 15 lbs. per acre. It can also be sown in drills 12 to 15 inches apart and cultivated.

One ounce sows 100 ft. of drill. 10 to 15 lbs. per acre in drills. 15 to 20 lbs. per acre, broadcast. One-half pound is sufficient for a medium garden.

308 BLOOMSDALE SAVOY (or Norfolk)—A very early sort especially desirable for fall use. Plant is upright, having glossy, thick, crimped, green leaves, pointed. A favorite sort for market gardeners and truckers.

309 ROUND THICK LEAF—One of the best sorts for spring sowing as it is somewhat slower to go to seed than Bloomsdale. Plant upright, vigorous; leaves large, thick, fresh bright green color.

TOMATO

(See Page 6 for Prices)

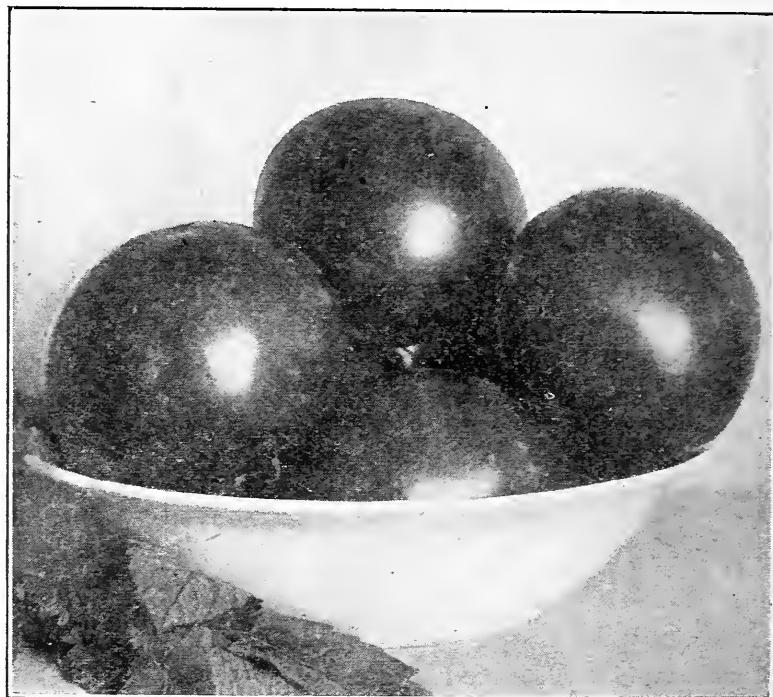
A popular crop in all home gardens and usually profitable for truckers, market gardeners and growers for canning factories.

CULTURE—For earliest crop sow in a hot bed or shallow boxes in February or March, transplanting when 2 or 3 inches high to small pots, trays or cold frames. When danger of frost is past (usually in this climate the 1st to 10th of May), set in open ground 3 x 4 feet apart. Well rotted manure, sheep manure or other good commercial fertilizer should be used in the hills at the rate of a dessert spoonful per hill or about 200 lbs. per acre mixed with the soil. It is essential for producing good stocky growth that the soil be enriched in this manner as it will have a tendency to prevent blight and add vigor and fruitfulness to the vines. Tomatoes should be staked to keep the fruit from the ground and it will help also prevent blight, mildew and make them more prolific.

INSECTS AND BLIGHT—For the green worm which eats the foliage, use Hellebore, either dry or in solution, or Paris Green mixed with water at the rate of 1 lb. to 150 gallons and spray. For rot, blight and other diseases, spray the plants with Bordeaux Mixture in solution, commencing early.

Directions will be found under Insecticides.

One ounce produces about 2500 plants; 2 ounces produces enough plants to set one acre. For early crop sow in February; for late crop sow in open bed in April or May.



PURPLE KING TOMATO

EARLY VARIETIES

318 PURPLE KING—One of the largest and best of the purplish pink varieties. Vines very vigorous and productive; fruits smooth, uniform in size nearly globe shaped. It is an extremely early sort and of excellent quality. We strongly recommend it for market gardens and it will prove one of the best sorts for home gardens for early use. It is especially valuable for shipping. Purple King will become popular wherever grown. It is a very large, early sort and its freedom from cracking and tendency from blight are strong points in its favor.

319 SPARK'S EARLIANA—A deep scarlet, very early variety which is largely planted by truckers and market gardeners. Fruit is borne in clusters, is medium to large, nearly round, and exceptionally smooth for so early a variety. On account of its extreme earliness and the fact that the crop ripens uniformly and very early it is one of the most valuable of the first of the early sorts.

320 JUNE PINK—An extra early purplish-pink sort similar to Earliana except in color. It is a valuable variety for market gardeners and truckers, especially on markets where purplish sorts find ready sale.

321 CHALK'S EARLY JEWEL—A particularly desirable sort with purplish scarlet fruit, nearly round, smooth, of large size and a most excellent quality. Fruit ripens early and not inclined to crack, is early and pickings are extended over a long season. One of the best of the early sorts and unsurpassed for home gardens.

322 DWARF CHAMPION—An early variety which is very dwarf growing. The vines are so stiff that they are generally self-supporting. Fruits medium size, purplish red and borne moderately early. On account of its strong, upright growth, it is sometimes sold as Tree Tomato and is desirable on extremely rich soil and where tall varieties have a tendency to make too much vine.

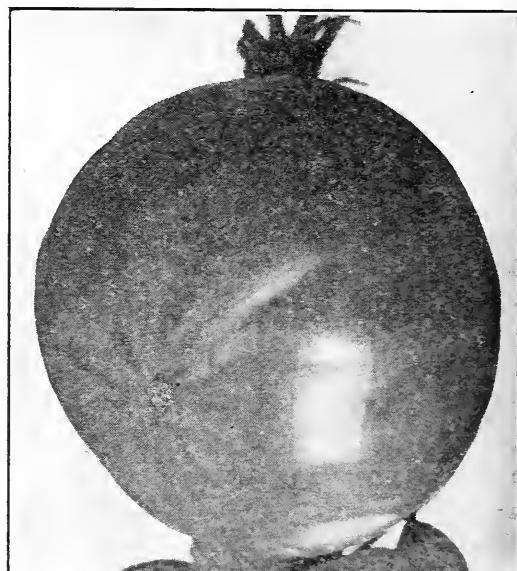
323 JOHN BAER—An extra early scarlet fruited variety of superior merit. The vines are very hardy and exceptionally productive. The fruits are the largest of the extra early sorts and are also most attractive in color. They are nearly round, smooth, firm and of excellent quality. It is one of the very earliest to ripen its first fruits and it continues to furnish marketable fruits much longer than other very early varieties.

324 BONNY BEST—The fruits of this desirable early sort are most attractive in shape and color. The crop ripens more uniformly than any other early scarlet fruited sort, and is of superior solidity and interior color. The vines are vigorous and produce a good crop of exceptionally round and deep fruits, bright deep scarlet in color and of very good quality.

MAIN CROP SORTS

325 BEAUTY—One of the most satisfactory and popular sorts. Fruits are purplish pink, ripen evenly, are uniform in size, very solid and finest quality. They are exceptionally smooth and do not crack readily. Vines large, vigorous and very productive, ripening fruits about mid-season.

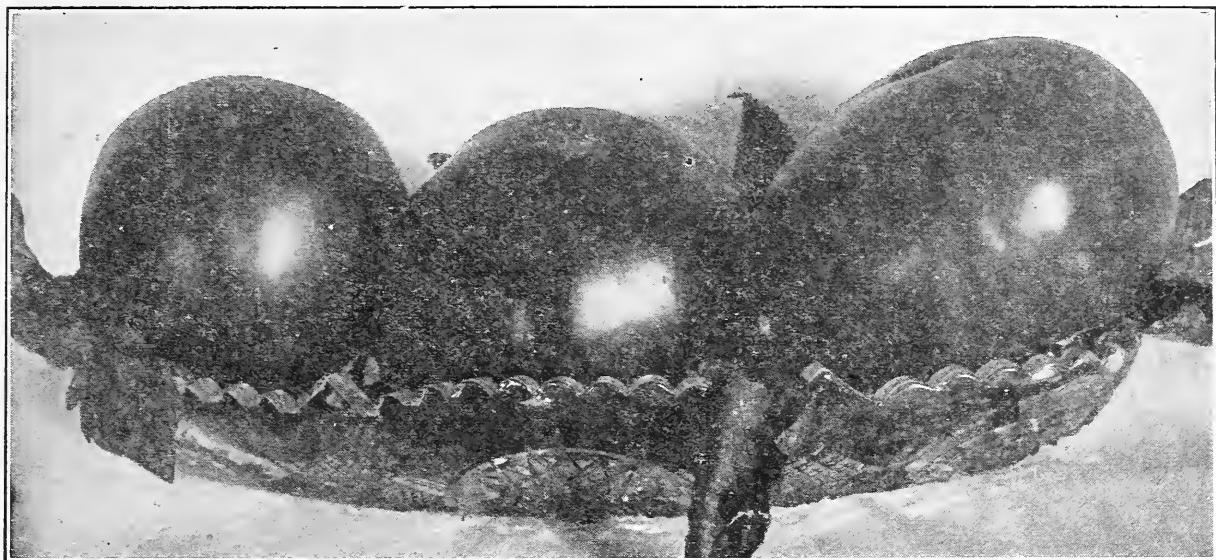
326 STONE—One of the very best Tomatoes producing large, very smooth, solid fruit slightly flattened, deep red color. It is very popular with all market growers and especially desired by canners. Ripens mid-season. On account of its large yields and general uniformity in production we strongly recommend it for both market gardens and home uses.



BEAUTY TOMATO

TOMATO—MAIN CROP SORTS—CONT'D

(See Page 6 for Prices)



PONDEROSA TOMATO

327 PONDEROSA—One of the largest and finest varieties for home use. It is purplish pink in color. Vines vigorous, tall, fairly productive. Fruits are very solid and have exceptionally few seeds. It is fairly smooth for so large a variety and sometimes attains such a size that one slice will cover a dinner plate. Very free from acid, has few seeds, is of delicious flavor and most excellent for slicing; ripens about mid-season. On account of its thick meaty flesh and fine flavor it is most desirable for home use, and the large showy handsome fruits are popular sellers for fancy fruit stands.

328 TRUCKER'S FAVORITE—A large, deep purple variety, producing uniform size fruit. It is somewhat deeper color than Beauty; fruit being more globe shaped, largely used for main crop, producing fine yields of large, smooth, solid fruits which command best prices—hence very popular with truckers and market gardeners.

329 DWARF STONE—Similar to Stone, being bright red, very smooth, solid, fine quality. The plants, however, are very much more dwarf, growing more like Dwarf Champion—hence, require very little staking and can be grown closer together. Valuable for small gardens or market gardens where close planting is desirable.

330 LIVINGSTON'S GLOBE—A large, purplish pink, globe shaped sort. Fruits are very nearly round, fairly even in size, smooth and mature quite early. Vines are vigorous, productive and thrifty. It is popular and profitable for outside crop and a very superior sort for green house forcing. Many growers depend for their whole crop on this sort. Our stock of this is very select.

331 CINCINNATI PURPLE—A favorite sort in this locality and one of the very best for market or home use. It is very round, smooth, deep shaped, solid and of splendid flavor. Vines are vigorous and remarkably productive. Fruits of large size, very meaty; have small seed cells and of rich flavor.

332 EARLY DETROIT—A very productive, early purple sort, uniform in size of fruit, free from cracks, and does not blight easily. Fruit large and smooth. Vines vigorous and quite productive. Quality excellent.

333 IMPROVED TROPHY—An old and very popular sort for family gardens. It is very large, ripens moderately late, is a deep crimson scarlet color and excellent quality. Fruits solid, fairly smooth and fine for cooking, canning or slicing.

334 GOLDEN QUEEN—A large growing variety bearing abundantly. Fruits are golden yellow color, are smooth, well shaped and desirable for slicing as a contrast with red varieties on the table.

335 YELLOW PEAR—Fruits pear shaped about 2 inches long, rich clear yellow color, largely used for canning, tomato preserves and pickling.

336 RED PEAR—Fruit similar to Yellow Pear, excepting that they are deep purple red color. A splendid variety for preserves.

337 YELLOW CHERRY—Fruits $\frac{5}{8}$ inch in diameter, perfectly round and smooth. A splendid sort for sweet or sour pickles and preserves.

TOMATO PLANTS—Leading varieties in season. Cannot send by mail.

TURNIP

(See Page 6 for Prices)

One of the easiest crops to grow and profitable for stock feeding and in most cases for markets.

They cost so little to grow, make splendid nutritious feed and should be much more generally used. A good yield from an acre of Turnips is from 600 to 1000 bushels.

CULTURE—For early use, sow in March or April either broadcast, or in drills, using preferably Milan or Purple Top Strap Leaf or Globe.

Rutabaga is sown in June or July, preferably in drills 2 feet apart thinning out to 6 inches.

Turnips for main crop are sown from July to September 15th, broadcast 1½ to 2 lbs. per acre.

Turnips for greens, can be sown as late as October 1st and require 3 to 4 lbs. per acre.

338 EARLY PURPLE TOP MILAN—Extra early variety which is very sweet and particularly valuable for sowing in early Spring. Roots are medium size, plants purple top flat. Best for private gardens and preferable to grow for early market crop.

339 EARLY RED or PURPLE TOP (Strap Leaf)—A well known early sort which is largely used in all sections. Our stock is American grown and extra choice.

340 IMPROVED PURPLE TOP GLOBE (Strap Leaf), called also RED TOP GLOBE—A very superior strain, producing large smooth roots, which are sweet and tender. One of the best for early or main crop use. Choice American Stock. Excellent either when young or fully matured.

341 EARLY WHITE FLAT DUTCH (Strap Leaf)—Similar to Early Purple Top Flat, excepting that it is white all over. Quick grower, excellent quality and splendid for early crop.

342 WHITE EGG—An early, oval variety with smooth, clear white roots, medium size which grow half out of the ground, top small, flesh clear white, fine grained, sweet. Excellent either when young or fully matured. Pkt., 5c; oz., 10c; ¼ lb. 25c; lb., 75c.

343 LONG WHITE COW HORN—These often grow 12 to 15 inches long and are very valuable crop for stock feed, flesh is white, well flavored and good for table use.

344 YELLOW ABERDEEN—A globe shaped variety with purple top, flesh yellow, sweet, somewhat coarse grain, an excellent sort for stocks, producing large crop.

345 YELLOW GLOBE or AMBER—A globe shaped variety with orange yellow flesh and green top, valuable for stock feeding.

346 SEVEN TOP—Used entirely for greens and very popular in the Southern States.

347 IMPROVED AMERICAN PURPLE TOP, RUTABAGA—Our stock of this is superior stock and can be depended on by the most critical growers. Rutabaga besides being best food for stock, is the sweetest of all Turnips for table use.



EARLY RED OR PURPLE TOP TURNIP

TOBACCO

(See Page 6 for Prices)

Saved from crown shoots only and grown for us by practical growers.

CULTURE—The seed is sown from February to April in open beds. Ground must be clean, very finely pulverized, raked fine and smooth. It is customary to burn over the top of the bed by piling brush or litter to destroy weed seeds and add fertility for the young plants. After sowing, beds are protected with thin cotton cloth similar to cheese cloth to protect them from tobacco flies. About June 1st it is set in rich or highly fertilized ground in rows 3½ x 3 ft. Cultivate often and destroy worms by applying Paris Green or Arsenate of Lead.

One ounce sows 50 sq. yds., sufficient to set 2 or 3 acres. Sheep manure will give most excellent results on this crop and should be applied in hills two to three hundred pounds per acre.

348 WHITE BURLEY—A standard sort which is more largely grown in Blue Grass region of Kentucky, Ohio, Tennessee and Missouri than any other sort. It is a large growing sort having very broad leaves of finest quality and largely used for fine bright leaf, especially for cigarette tobacco, fine bright mixing tobacco and outside wrappers for plug. Commands highest prices on the market and where soil is suitable the most profitable of all sorts.

349 STAND-UP BURLEY—Has all the good qualities of White Burley but superior to that variety in many respects. The leaves instead of drooping have a more erect position on the plant, turning upward rather than down—hence, the name "Stand-up." It

is fast becoming the most popular type of Burley and largely grown by planters in all Burley sections.

350 CONNECTICUT SEED LEAF—A popular sort with northern and eastern growers on account of its early maturity and extra fine quality. Plants are short and stocky, leaves moderately long of good width, and make excellent filler.

351 HAVANA—A fine strain of Americanized Havana used for cigars and adding flavor to smoking mixtures.

352 ZIMMER'S SPANISH—A very early sort of moderate growth, largely used for cigar filler. Very popular in northern sections and uniformly good yielding. Price on request.

CHOICE FLOWER SEEDS

With Cultural Instructions and Information.

Prices on ounces and pounds are net; no discount.

Other prices include postage except where noted.

Wonderful and satisfactory results can be obtained from growing flowers from seeds and as a rule there is comparatively little trouble. Some special varieties require particular treatment but most of them can be easily grown and while a few are to be grown in hot beds and transplanted, the majority can be sown in open border or in open beds where they are to bloom, afterwards thinning or transplanting to positions they are to occupy. It is essential that the ground be clean, fairly rich and some care taken to keep down weeds, especially when the young plants are first coming up. Sheep Manure will give better results on soil than stable manure because it eliminates weeds and affords all of the elements of plant food necessary to the proper development of flowers.

Flowers from seeds may be divided into three distinct classes:—**ANNUALS * BIENNIALS * PERENNIALS** and are abbreviated and described briefly as follows:

ANNUALS—Producing flowers and seeds the first season from sowing but last only one year as they die in the summer or fall. They sometimes come up year after year from self-sown seeds but as a rule this is not to be depended on. Among them are some of the most beautiful and showy flowers of our gardens and a selection of various sorts will give an uninterrupted succession of display from early summer until late fall.

ANNUALS are divided into three classes:

HARDY ANNUALS (H. A.) which are usually sown in open border the end of March or April, thinning out and transplanting as necessary.

HALF-HARDY ANNUALS (H. H. A.) are usually started in boxes, frames or hot beds and transplanted when the weather is warmer or if sown in open border, delay planting until the ground is fairly warm, say the middle of April to the 1st of May.

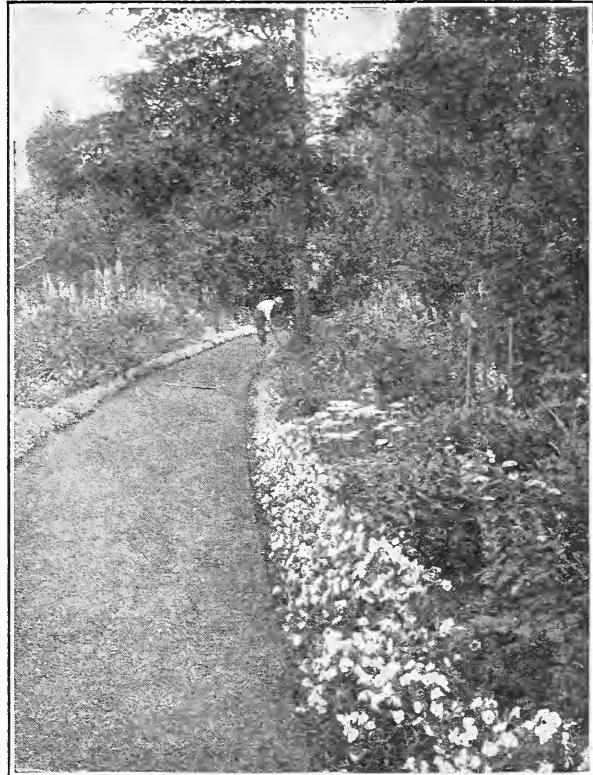
TENDER ANNUALS (T. A.) are still more susceptible to cold and bad weather and should have a little more careful treatment than the other two classes.

BIENNIALS—Biennials are plants which last two years, most of them sown early and bloom the first season and again the following season after which they usually die, but some biennials with close cutting are practically perennial. Among them are some of our best border plants which are useful both for the garden display as well as home adornment and wearing.

BIENNIALS are also of three classes:—**HARDY BIENNIALS** (H. B.); **HALF-HARDY BIENNIALS** (H. H. B.); and **TENDER BIENNIALS** (T. B.). The various classes require about the same treatment as for the same classes of Annuals.

PERENNIALS—These embrace a wonderful collection of showy and satisfactory plants. Many of them attain considerable height and are valuable as shrubbery for decoration but the majority are what are called **HERBACEOUS** Perennials in that they die down to the roots each year and spring up again the following season. In the present day of permanent homes, Perennials are among our most popular flowers as once planted they live for a long time and in laying out gardens and grounds a careful selection of perennials will add the greatest attractiveness and beauty. Perennials should be put in such portions of the garden that they will be permanent and not require removing. If planted in borders a grouping of sorts suitable to the shrubbery and according to height is to be desired. Perennials while usually not blooming until the second year if sown early will generally bloom the first year, especially so if started early in the house. Or seeds can be sown in August and September; thinning or transplanting as desired. They will then bloom the following year.

PERENNIALS may be divided in the same classes as the preceding, which are **HARDY PERENNIAL** (H. P.); **HALF-HARDY PERENNIAL** (H. H. P.); **TENDER PERENNIAL**



(T. P.) and require practically the same treatment as the other two classes.

It is desirable in some cases to transplant Annuals, Biennials and Perennials to small pots before planting in the open ground.

SELECTION OF SORTS.

In planting mixed borders it is of course desirable to get plants of different heights in their proper position; hence, we have indicated throughout the catalog as far as possible the approximate heights which the different plants attain. Then it is usually desirable to know at about what season the plants bloom and how long they continue so this is indicated by figures 1-2-3-. It is of course almost impossible considering various soils, climate, localities and seasons to state accurately the time of blooming as so much depends on the time sown, amount of sunshine and other contingencies, but where such information is stated in the catalog it can be depended on as being approximately right.

RULES FOR PLANTING.

Flower seeds are usually small; hence, should never be planted deep. A good general rule is to sow seed at a depth not over 3 or 4 times the diameter of the seed. In very small seed, covering should be very light but the ground should always be firmed down after the seed is sown. Do not attempt to work your garden or border when the ground is wet as it makes it very hard the whole season afterwards. Wait until the ground is in good condition and put it in as fine order as possible. Careful preparation before planting is of as much value as the entire cultivation afterwards. Flower seeds are preferably sown in small rows rather than broadcast and a most effective bed can be made by sowing in rows of different sorts according to heights (allowing sufficient space between rows). Start in the center with tall plants and gradually taper off to small border plants. If the bed is large a Planet Junior Seed Sower will be found excellent for sowing flower seeds but if sown in limited quantities this can be readily done by hand. Sowing in rows allows weeding to be done more easily without pulling up the young plants and if transplanting is to be done the plants can be more readily lifted.

GENERAL LIST OF
CMC Choice Flower Seeds

Abutilon (Chinese Bell Flower)—A class of shrubby tender perennials which is attractive and ornamental. The flowers are pendulous and bell shaped, 1 to 1½ inches in diameter with 5 petals and a single stamen stem in the center. It is of strong growth, easy cultivation, free flowering and the various colored blooms, T. P. 2 to 3 feet high.

501 Choice Mixed Colors, pkt.....10c

502 **Achillea** (Pattica, "The Pearl")—A hardy perennial attaining height of about 2 ft. which bears an enormous amount of pure, double, white flowers in close heads. It is one of the best plants for cemetery uses and a most decided adjunct to gardens. If sown early and transplanted it will flower the first season or can be sown later in the open ground. Pkt...10c

Aconitum (Monk's Hood)—A hardy perennial producing long spikes of blue flowers somewhat resembling Delphinium or Perennial Larkspur. It is better suited to permanent borders and is well adapted to partial shaded or moist situations.

503 **Napellus**, Blue—Height 3 to 4 feet. Pkt.....10c

Acroclinium An "Everlasting," growing about 15 inches high, bearing white or rosy-pink flowers, which, when cut in the bud state, can be dried and used in winter bouquets. Half-hardy Annual.

504 Double Mixed—Oz., 50c. Pkt.5c

Adlumia (Mountain Fringe, Allegheny Vine, or Climbing Fumitory)—A graceful climber, but, as it resows itself year after year, it might be considered perennial. The feathery foliage closely resembles that of the Maidenhair Fern. The flowers are tube-shaped, flesh-colored, and completely cover the plant. For covering trellises, stumps of trees, etc., it is very desirable. Flowers the first year from seed. Hardy Biennial.

505 **Cirrhosa**—Pkt.....5c

Ageratum (Devil's Paint Brush)—A beautiful hardy annual which bears in dense clusters attractive feathery flowers which are very useful for bouquets or decoration. It grows in bush form and is desirable for outdoor bedding and borders, bearing profusely and covered with blooms nearly all the summer. For earliest blooming can be started indoors or later sown outside.

506 **Mexicanum**—About 2 ft. high, hardy, bearing light blue flowers. Pkt.....5c

507 **Imperial Dwarf White**—Height 10 inches. Pkt.....5c

508 **Imperial Dwarf Blue**—Height 10 inches. Pkt.....5c

Agrostemma (Rose of Heaven, Mullein Pink)—An attractive, free-flowering plant of easy culture, producing flowers on long slender stems, like a single pink. Blooms the first season. Fine for cutting, 1 to 2 feet Hardy Biennial.

509 Mixed Varieties—Pkt5c

Alyssum—A hardy annual, which is useful for borders, edgings or massing in small beds. It blooms very early and is almost covered with clusters of trusses of small white flowers which are sweet scented having a peculiar, delicate fragrance.

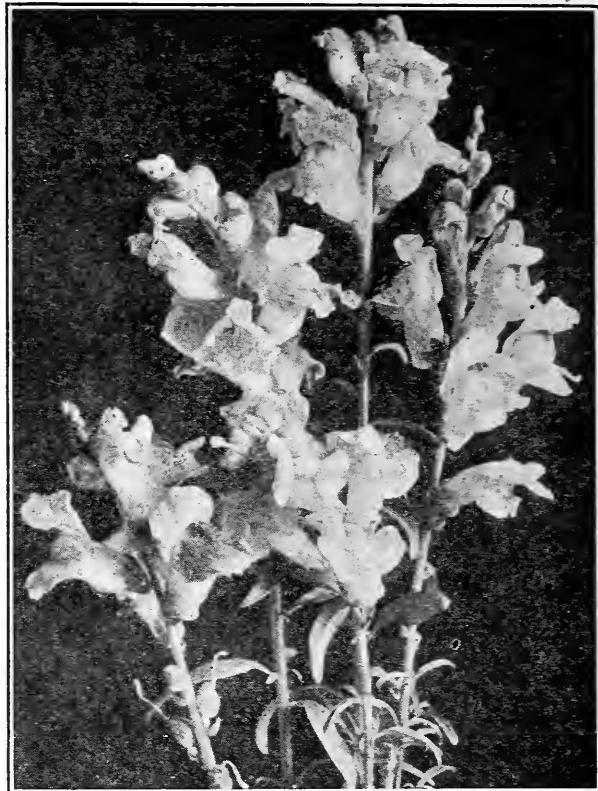
510 **Sweet**—Height about 8 to 10 inches but spreading. Oz., 25c. Pkt.....5c

511 **Tom Thumb**—A splendid sort for edges, borders, or rock work. Height about 6 inches. A compact mass of bloom 12 to 15 inches across. Oz., 40c. Pkt.....5c

Amaranthus—A class of annuals which are desirable on account of their bright multi-colored foliage. Some of them are valuable for cutting. Tall varieties afford brilliant contrasting colors and as the leaves and stems are usually of different shades, red and green, are unique in many respects.

512 **Tricolor** (Joseph's Coat)—Leaves red, yellow and green especially brilliant if grown in rather poor soil. Height 3 ft. Oz., 35c. Pkt.....5c

513 **Caudatus** (Love Lies Bleeding)—Long, drooping sprays of brilliant scarlet flowers. Height about 2 ft. Pkt.....5c



ANTIRRHINUM

ANTIRRHINUM (Snapdragon)

Well known, showy border and bedding plants of long blooming season. The spikes have curious shaped tubular flowers with spreading lobes and finely marked throats. They are fragrant, brilliant colors and most desirable for cutting in addition to being one of the most ornamental bloomers for garden uses grown from seed. Succeed in any good garden soil, growing 1½ to 2 ft. high, if sown early and transplanted will bloom the first season. H. P. 2-3.

GIANT FLOWERED VARIETIES—(Grandiflora)

Bearing large spikes of enormous flowers in many brilliant colors. Our strain is extra choice.

514	Queen Victoria—Very handsome, fine white, excellent for cutting. Pkt.....	10c
515	Delilah—Enormous flowers, carmine with white throats. Pkt.....	10c
516	Blood Red—Large, brilliant crimson spikes. Pkt....	10c
517	Brilliant Rose—Pkt.....	10c
518	Giant Yellow—Pkt.....	10c
519	GRANDIFLORA MIXED —A select strain of this beautiful flower which comprises the best sorts in many and gorgeous colors. Oz., 80c. Pkt.....	5c

DWARF SORTS.

520	Queen of the North—A pure white sort, blooms profusely and growing about 12 inches high. Oz., \$1.00. Pkt.....	10c
521	DWARF MIXED (Picturatum)—A superb strain of blotted, striped, semi-dwarf, growing about 15 inches high; many brilliant colors. Oz., \$1.00. Pkt.....	5c

Ampelopsis Veitchii (Boston Ivy)

See page 63.

AQUILEGIA (Columbine.)

One of the most pleasing of hardy perennials which is very desirable, easily grown and excellent for borders. It is an old-fashioned perennial, forming large permanent clumps which bloom profusely early in the season and remain in bloom for a considerable period. Flowers are of peculiar shape, pendant, exquisite form, often with long spurs.

Seed is somewhat slow in germination. Can be sown in boxes early or in open border in March and should be transplanted to permanent beds at least one foot each way. If desired seed can be sown in the fall. H. P. Height 2 to 3 ft.

We offer Single Aquilegia only as do not consider double sorts desirable.

522	KELWAY'S HYBRIDS —The most beautiful collection of long spurred Aquilegia which have been wonderfully developed and comprise brilliant and showy flowers from purest white through yellows, pinks, blues, purples and other shades. ¼ oz., 50c. Pkt..	10c
523	Single Mixed —A good strain of ordinary Aquilegia comprising fairly good sorts of single varieties. Oz., 75c. Pkt.....	5c

ASTER

One of the most satisfactory of all annuals and unsurpassed for bedding, cutting and decoration. It is not only desirable for home gardens but profitable for professional growers. Asters are in many and diversified sorts, comprising various sizes, colors and forms. They bloom usually in mid-summer at a time when good cutting flowers are scarce. Plants are of vigorous growth and hardy, sometimes standing slight frost without serious injury. We recommend that various sorts be sown for blooming at different seasons. They can be easily grown without the assistance of hot bed. For earliest blooming, seed should be started in boxes or hot beds or little later they can be sown in beds in the open and transplanted where they are to bloom, allowing from one to one and a half feet between plants. Sheep manure will give good results on Asters and should be mixed with the soil before the plants are set out. We do not recommend Asters to be planted in the same soil two seasons as sometimes they suffer from disease on this account.

Our strain comprises the best of classes and of most select stocks. We advise sowings of earliest as well as late sorts for a succession of bloom.

INSECT REMEDIES—For the black bug which sometimes eats the flowers, spray with a solution of Hellebore in water, or Paris Green in water, at the rate of a heaping half teaspoonful to two gallons of water.

QUEEN OF THE MARKET

A very desirable sort blooming extremely early and bearing profusely. It has a wide range of colors and is fine for cutting and extensively used under glass. Plants are 16 to 18 inches high, of compact, branching habit and bear 10 to 15 flowers which are somewhat flat in shape with straight petals.

524	White—Very early, double, fine form. Pkt.....	5c
525	Rose—Oz., \$1.00. Pkt.....	5c
526	Light Blue—Oz., \$1.00. Pkt.....	5c
527	Dark Blue—Oz., \$1.00. Pkt.....	5c
528	MIXED COLORS —Comprising all shades blended in splendid proportions. Oz., \$1.00. Pkt.....	5c
529	AMERICAN BEAUTY —A variety of recent introduction and one that promises to become one of the leading sorts. The plants are of very strong, vigorous growth, averaging from two to three feet in height. The flowers are of remarkable size, having the widest petals of any Aster. Type of flowers is similar to the Semples variety but the flowers are much larger and are pro- duced on stiff stems often measuring more than two feet. The large flowers are bright carmine rose and are almost identical in color with the well-known American Beauty Rose. Pkt.....	15c

VICTORIA

An early flowering strain of very large flowered Asters which have long been in favor and are popular. Flowers are sometimes 3½ inches across over half of the center with broad thick petals which curve outward. They overlap so regularly as to resemble a double Dahlia. Plants grow about 15 to 18 inches high and are bushy and prolific. This has long been a favorite with commercial growers and is a superior sort to use in home gardens. Our strain is finest imported stock and comprises brilliant colors, both separate and mixed.

530	White—Very handsome flowers, excellent for cutting. ¼ oz., 50c. Pkt.....	10c
531	Rose—A delicate shade of light pink and very hand- some. ¼ oz., 50c. Pkt.....	10c
532	Crimson—A glowing brilliant crimson. ¼ oz., 60c. Pkt.....	10c
533	Light Blue—Very large, bright light blue. ¼ oz., 50c. Pkt.....	10c
534	Dark Blue—Purplish blue, very brilliant. ¼ oz., 50c Pkt.....	10c
535	MIXED —A wonderful mixture comprising all shades including those listed above and many others. ¼ oz., 40c. Pkt.....	10c

GIANT BRANCHING

A giant flowered Aster growing 18 inches to 2 ft. high and bearing enormous double flowers with broad petals outcurved. Fine exhibition sorts. This is finer than the Giant Comet or Ostrich Feather being larger, petals much longer and more curled and twisted. It blooms early and extends over a considerable period.

536	White—Enormous, double white flowers with broad twisted petals. ¼ oz., 40c. Pkt.....	10c
537	Rose—Brilliant, lively pink. ¼ oz., 40c. Pkt.....	10c
538	Light Blue—Handsome flowers. ¼ oz., 40c. Pkt.....	10c
539	MIXED —Comprises all shades. Fine stock. ¼ oz., 25c Pkt.....	10c



VICTORIA ASTERS

CREGO

Another of the largest and most beautiful Asters having double flowers which have long, twisted petals. Plant is branch-
ing, very vigorous. Flowers are borne on long strong stems. It
blooms in mid-season and is highly commended among commercial
growers.

541	White—Glistening pure white of enormous size. Petals grow so thickly, showing nothing of the cen- ter. One of the best for cutting. ¼ oz., 50c. Pkt... 10c
542	Giant Pink—A beautiful soft pink of large size. Petals curled and twisted. ¼ oz., 50c. Pkt..... 10c
543	MIXED —Pkt.....

CHINA ASTERS

A mixture of fair strains which will give good satisfaction
for general purposes.

544	Finest Mixed Colors—Oz., 75c. Pkt.....	5c
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African Daisy

A showy handsome annual, growing about 2 feet high.
Flowers are pure white on the upper surface and the reverse of
the petal pale lilac blue. It is easily grown from seed. Sow in
hot bed or open ground. Commences to bloom early and will
continue until frost. Very desirable for cut flowers and the un-
developed buds will come out nicely if placed in a sunny window.

545	Pkt.....	10c
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Asparagus

Highly prized for very finely cut foliage which is used in
decoration and in making of bouquets and designs. Valuable for
conservatories and sometimes used in hanging baskets, being
ornamental and trailing. Seed should be soaked in warm water
before planting and when plants are large enough to handle,
transplant to where they are to grow.

546	SPRENGERI —Sprays 3 to 4 ft. long, light green. Pkt.....	5c
547	Plumosus —Very finely cut, feathery foliage; highly prized and ornamental; light green. Pkt.....	10c

BALSAM (Touch-Me-Not or Lady's Slipper)

An old fashioned flower which is generally popular in all gardens. It bears flowers of various shades, white, pink, red, yellow, purple, etc., some of which are beautifully striped and spotted. It is a tender annual which can be sown in open border; blooms early, or sown in house and transplanted if desired. Grows about 1½ to 2 ft. high, makes erect bushy plants and rich soil is required in producing the finest blooms.

- 548 DOUBLE MIXED—Oz., 75c; Pkt.....5c
549 DOUBLE CAMELLIA FLOWERED WHITE—Splendid for florists or bouquets. Very double. Oz., \$1.00; Pkt.....10c

BALSAM PEAR or APPLE—See page 63.

BALLOON VINE—See page 63.

BACHELORS BUTTON—See Centaurea.

BLACK EYED SUSAN (*Thunbergia*)—See page 64.

Begonia, Vernon.

A tender Annual, producing large masses of bright, rich, red flowers, which are set off by abundant glossy green leaves, broadly margined with bronze or purple. The plant is very effective whether in bloom or not. It is hardy, very free flowering and excellent for pot culture or bedding out in partially shady locations. Suitable also for window boxes.

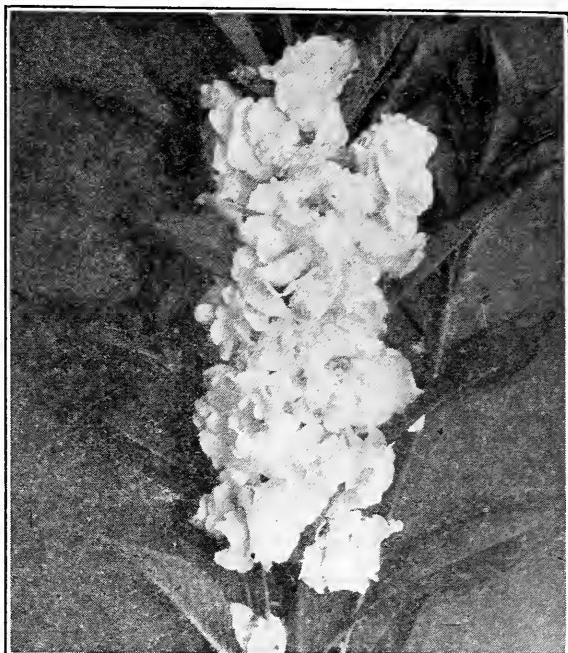
The seed is extremely small, hence should be sown very shallow and kept moist with mulch until germination. Transplant as soon as large enough to handle to small pots.

- 550 Pkt.....10c
TUBEROUS ROOTED BEGONIAS. See under FLOWERING BULBS.

Bellis Perennis (English Daisy.)

A well known dwarf growing plant which bears massy and very double aster-like flowers. It is very useful for borders or growing for cut flowers. Plants are about 6 inches high and bear in greatest profusion. The seed is usually sown in August and as it is a half-hardy perennial, will with a little protection stand the winter. It can also be sown in the spring.

- 551 DOUBLE MIXED—Large, double flowers, various shades pink, red, white and other colors. Pkt.....10c
552 GIANT DOUBLE WHITE—Splendid for bouquets, designs etc. Pkt10c

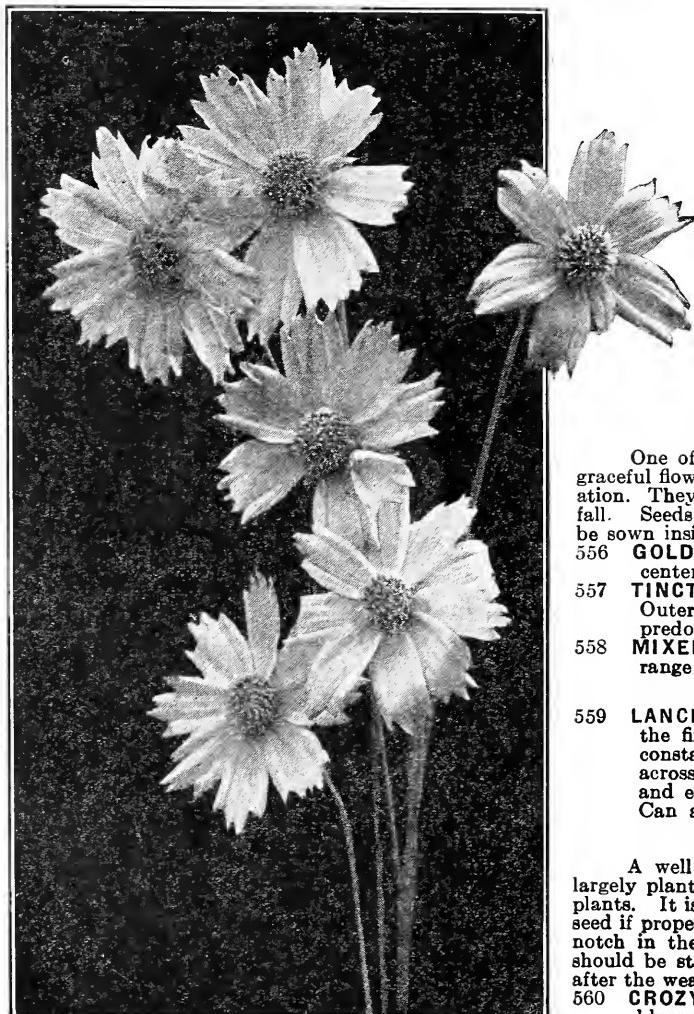


BALSAM, CAMELLIA FLOWERED WHITE

Browallia

A free blooming plant producing masses of bright blue flowers which continue in bloom during the summer and autumn. Grows about 6 to 8 inches high. H. H. A.

- 553 MIXED—Various shades of blue. Pkt.....5c



COREOPSIS LANCEOLATA GRANDIFLORA

CALENDULA (Pot Marigold)

A hardy annual, which will grow and succeed in almost any garden. It produces a brilliant effect in beds and borders, being extremely free blooming and commencing early and continuing in greatest profusion until frost.

- 554 METEOR—Beautiful, imbricated, very large, double flowers. Petals light yellow, delicately edged with orange. Desirable for beds, borders and back-ground. Height, 2 ft. Oz., 35c
Pkt.....5c
555 PRINCE OF ORANGE—A very distinct variety, has large, double, golden yellow flowers. Petals shaded, dark orange. Produces in great abundance. Grows about one foot high. Valuable for borders and edgings. Oz., 40c; Pkt.....5c

CALLIOPSIS OR COREOPSIS

Annual Sorts

One of the best annuals for beds or borders, producing attractive and graceful flowers on long stems which are most effective and artistic for decoration. They commence blooming early and continue in profusion until early fall. Seeds are usually sown outdoors where they are to bloom but they can be sown inside and transplanted if desired.

- 556 GOLDEN RAY—Bright, golden yellow flowers with dark centers. Oz., 40c; Pkt5c
557 TINCTORIA—Brilliantly colored flowers with large dark centers. Outer petals vary from clear yellow to brown, the dark colors predominating. Height 2 to 3 ft. Oz., 40c. Pkt.....5c
558 MIXED—A splendid mixture comprising many varieties and a great range of colors. Oz., 35c; Pkt.....5c

Perennial.

- 559 LANCEOLATA GRANDIFLORA—A hardy perennial blooming the first year from seed and producing on very long stems a constant succession of rich, bright yellow flowers, 2 to 3 inches across. Highly desirable and ornamental for borders or beds and exceedingly valuable for cutting and decorating purposes. Can also be sown in the fall outdoors. Oz., 75c. Pkt.....10c

CANNA.

A well known ornamental plant of semi-tropical appearance which is largely planted in beds in groups and masses and as a background for other plants. It is usually grown from roots but good results can be obtained from seed if properly treated. As the seeds are very hard it is better to cut a small notch in them and soak in warm water for 24 hours before planting. It should be started in boxes or under glass and transplanted to open ground after the weather has become warm.

- 560 CROZY'S HYBRIDS—Saved from a brilliant collection of best blooming sorts and comprising many varieties and shades of colors. Oz., 40c. Pkt.....5c
CANNA ROOTS. See SUMMER FLOWERING BULBS.

CANTERBURY BELLS (Campanula)

A hardy, herbaceous biennial, of branching growth which blooms profusely. It is excellent for beds and backgrounds, producing long racemes of bell or saucer shaped flowers of rich colors which are very effective and valuable for cutting.

Seed can be started early indoors, or sown in the fall. Height 2 to 4 ft.

563 CALYCANTHEMA (Cup and Saucer)—Large single flowers; white, lilac, rose and purple. One of the best sorts. Pkt.....10c

564 SINGLE MIXED—Comprises all shades. white, lilac, blue, violet, rose, etc. Pkt.....5c

CARDINAL CLIMBER, See Page 64.

CANARY BIRD FLOWER, See Page 64.

CANDYTUFT

Hardy Annuals growing 12 to 15 inches high, of branching habit and producing in profusion large clusters of flowers which are splendid for cutting. They are excellent for borders or to plant in masses; also can be used for rockeries.

565 EMPRESS—Extra large, white trusses, produced in great profusion; fine for cutting. Oz., 50c. Pkt...5c

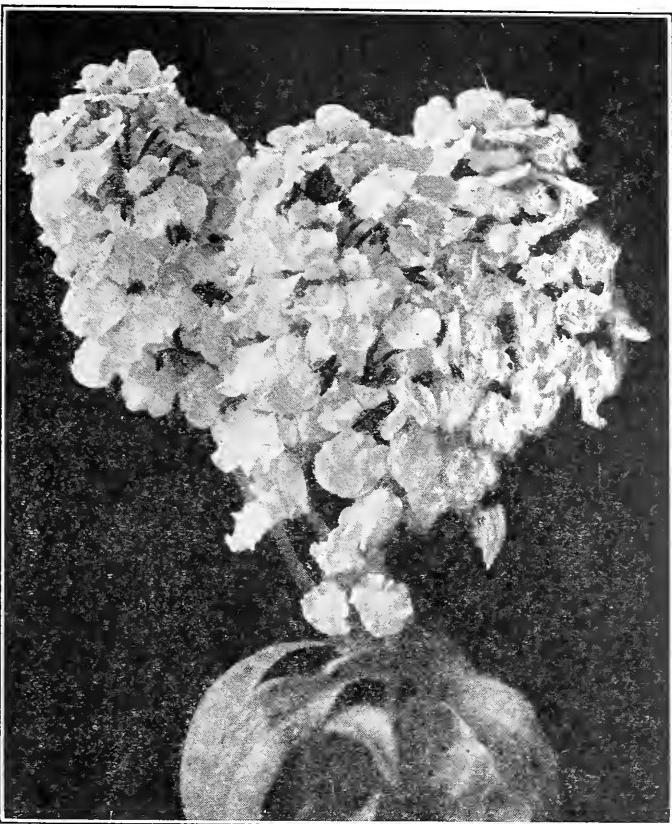
566 FINEST MIXED—Comprising all colors and shades. Oz., 40c. Pkt.....5c

CARNATIONS

Well known border plants which are very popular in all gardens. Some varieties are best adapted for pot culture and greenhouses. Plants are branching but compact and erect. Produce very double, semi-circular blooms, with thick necks on slender stems and usually clove scented. The seeds we offer make flowers valuable for cutting, and are useful as border plants. Half hardy perennial.

567 MARGUERITE—A very early blooming sort which sometimes blooms in four months from sowing. Flowers are large, double, deeply fringed, very fragrant. Plants semi-dwarf, good for bedding and desirable for cutting. Finest mixed colors. Pkt.....10c

568 FINE DOUBLE MIXED—Good double sorts comprising many shades and highly recommended for outdoor culture. Pkt.....10c



EMPRESS CANDYTUFT

CELOSIA OR COXCOMB—An extremely ornamental summer bedding plant, bearing large comb-like purplish red heads. Seed can be started in boxes and transplanted or sown later in open ground. Half hardy annual.

568½ GOLDEN PLUME. Pkt.....10c

569 GLASGOW PRIZE—Dwarf growing and bearing immense deep purplish red combs; foliage dark but not abundant. Pkt.....10c

569½ CHINESE WOOL FLOWER. (New.) Plants grow 2 to 3 feet high, branching freely, each branch terminating with a large roundish head like a ball of wool or chenille of a rich, bright scarlet color. They bloom early and continue until frost, retaining their rich color. Pkt.....10c

569¾ CHINESE WOOL FLOWER. (New.) Plants grow 2 to 3 feet high, branching freely, each branch terminating with a large roundish head like a ball of wool or chenille of a rich, bright scarlet color. They bloom early and continue until frost, retaining their rich color. Pkt.....10c

CENTAUREA CYANUS

(Called Corn Flower, Ragged Robin, Bachelor's Button, etc.)

Free flowering hardy annuals which are graceful and showy garden flowers. Flowers are borne on tall, slender or slightly branching plants with narrow leaves and comprise many bright colored single and double heads on long stems.

570 EMPEROR—A beautiful sky blue sort which is exceedingly effective and attractive. Oz., 40c. Pkt.....5c

571 MARGUERITE—Sweet scented, producing large white flowers on long stems; excellent for cutting. Height about 18 inches. Oz., 75c. Pkt.....5c

572 MIXED—Comprising various shades, blue, purple, white, pink, etc. Oz., 30c; Pkt.....5c

573 CENTAUREA GYMNOCARPA (Dusty Miller)—A silvery leaved sort with finely cut flowers, valuable for borders, beds, hanging baskets, vases and rockeries. It is of graceful and drooping habit growing 1½ to 2 ft. high. Pkt.....5c

CINERARIA (Hybrida)

Gorgeous and showy green house perennials, growing 1 to 2 ft. high, which bear immense heads of brilliant daisy-like flowers of many colors. The plants are in bush form, nearly as broad as high, have large velvety leaves which are shaded on the under side and the flowers are borne well above the foliage. The seed should be started in the fall in shallow boxes, but it can be sown very early in the spring, transplanting to small pots when large enough to handle and afterwards shifted to larger pots.

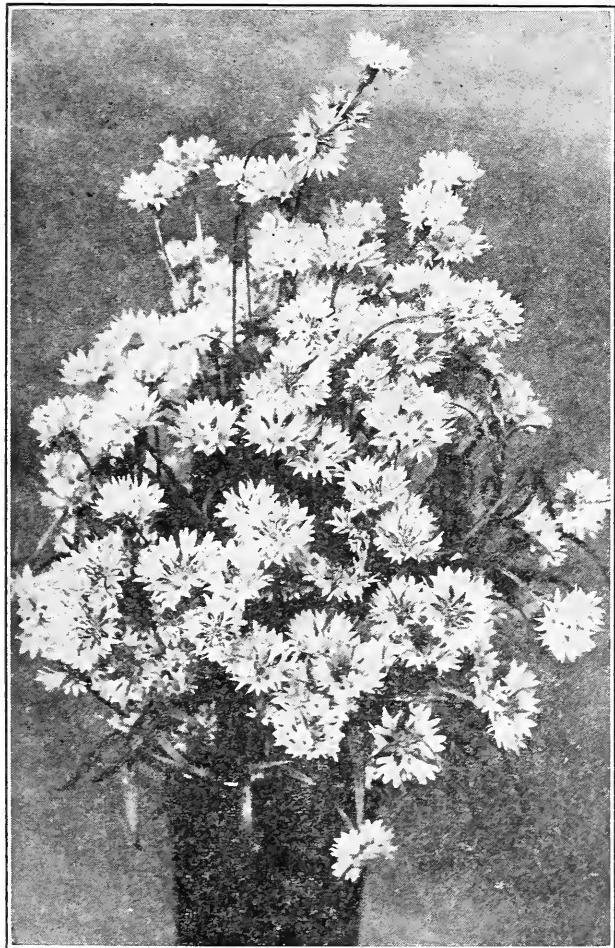
574 HYBRIDA GRANDIFLORA—Choicest strain of large flowering Cineraria in splendid mixture. Pkt.....25c

COLEUS

An ornamental tender perennial, with varied colored leaves, which is largely used for bedding and very attractive in vases. The leaves are in many shapes and shades of colors, green, yellow, orange, red and brown, most of them margined veined and striped and comprise a magnificent array of brilliancy. Seed should be started early in the house and shifted as soon as large enough, transplanting into open ground when the weather has become settled and warm.

575 FINEST MIXED COLORS—Pkt.....10c

COLUMbine, See Aquilegia.



CENTAUREA CYANUS

CHRYSANTHEMUM

The annual Chrysanthemums bear little resemblance to the perennial or fall blooming varieties and have a beauty and attractiveness all their own. They are valuable border plants excellent for cutting and comprise many brilliant shades. Bloom very early and will become more bushy if pinched back in early growth. Seed may be sown in open ground or started earlier indoors. Height 1½ to 2 feet.

ANNUAL VARIETIES

576	EVENING STAR (Called Corn Marigold)—Flowers of pure golden yellow sometimes three inches across and resembling in general appearance the Yellow Paris Daisy. Excellent for cutting and salable both in spring and fall. Pkt.....	10c
577	NORTHERN STAR—Pure golden yellow with broad purplish scarlet rings on petals, center dark blue; very beautiful and striking. Oz., 50c; Pkt....	5c
578	MIXED—A mixture of best annual sorts. Oz., 40c. Pkt.....	5c

Perennial Varieties

579	PARIS DAISY or MARGUERITE (<i>Frutescens Grandiflora</i>)—A beautiful perennial white variety having yellow eye which is excellent for cutting. Pkt.....	10c
580	JAPANESE HYBRIDS—A selection of the well known Autumn blooming Chrysanthemum, which are hardy. Flowers moderate size and in various colors mixed. Pkt.....	10c

COSMOS.

A hardy annual, which is one of the most beautiful and effective of autumn flowering plants and bears in greatest profusion large flowers having a single row of long petals around yellow centers. Colors vary from purest white through various shades of pink and crimson. Some of them attain large size, being 3½ to 4 inches in diameter. Plants grow 4 to 7 feet high, have finely cut foliage which is very ornamental and form excellent backgrounds in beds. Flowers are borne on long slender stems and are excellent for cutting and decoration. It is a very easy plant to grow. Seed can be started early if desired and transplanted or sown in open border where they are to bloom, thinning to 6 or 8 inches apart.

GIANT FLOWERED COSMOS—These produce enormous sized flowers, rich and varied colors, and is one of the best strains for show Cosmos.

581	Giant White—Oz., 50c. Pkt.....	5c
582	Giant Pink—Oz., 50c. Pkt.....	5c
583	Giant Crimson—Oz., 50c. Pkt.....	5c
584	Lady Lenox—A beautiful shade of shell pink, early blooming and very large flowers. Oz., 60c. Pkt.....	5c
585	Giant Mixed—Comprises all shades. Oz., 40c. Pkt.....	5c

COSMOS—EARLY FLOWWERED—These attain a height of about 4 ft. and bloom very profusely. They are 4 to 6 weeks earlier than the Giant sorts or old fashioned varieties. Flowers are not so large but as they bloom earlier are particularly adapted for late sowing or in northern latitudes where the season is short.



COSMOS

586	Early Flowered White—Oz., 60c. Pkt.....	5c
587	Early Flowered Crimson—Oz., 60c. Pkt.....	5c
588	Early Flowered Pink—Oz., 60c. Pkt.....	5c
589	Early Flowered Mixed—A choice mixture. Oz., 50c. Pkt., 5c	
590	MIXED COSMOS—A good strain. Oz., 40c. Pkt.....	5c

CYPRESS VINE (See page 63.)

CONE FLOWER (*Rudbeckia*.)

Showy, free-blooming, fine for cutting.

591	Newmani. One of the finest. H. P.....	10c
592	Bicolor Superba. Large, bright yellow, with dark spots. H.P. 10c	
593	Pupurea. H. P. 3 ft. Reddish purple flowers.....	10c

Cyclamen

593½	Persicum Giganteum Mixed—One of the finest strains of large flowered English Cyclamen which comprises the best shades and colors, varying through the various shades of white, pink, crimson, and dark red. Pkt....	25c
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Delphinium (Perennial Larkspur.)

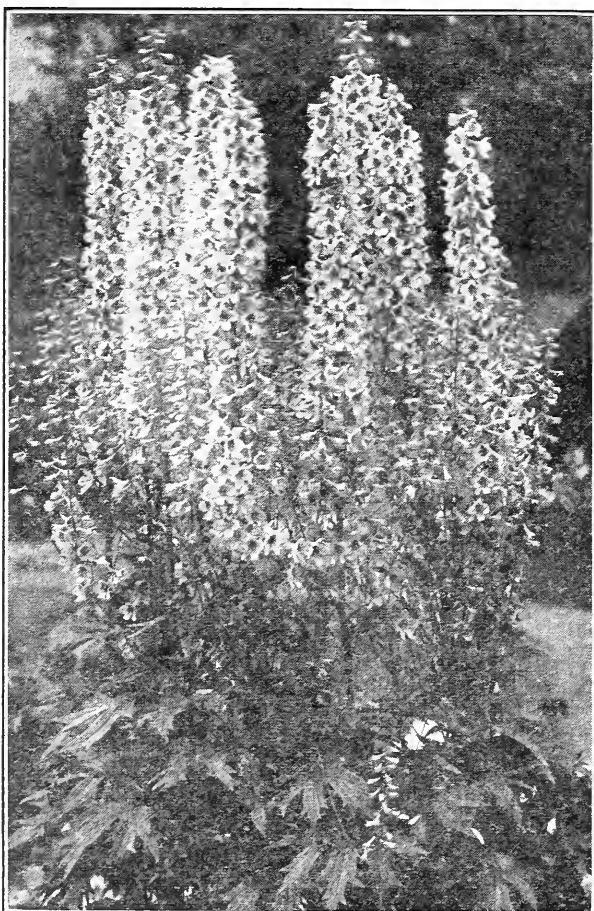
Very ornamental hardy perennials which are extremely attractive for borders or beds of shrubbery. It has long clustered spikes of beautiful irregular flowers often with long spurs and its beautiful shades of blue are very much admired. Our strain of Delphinium is particularly choice quality, comprising largest blooms and with the widest range of colors. We do not offer ordinary cheap strains at all. Seed can be sown early indoors and transplanted or in open border where they are to bloom, afterwards thinning to 1 to 1½ feet apart or seed can be sown in August and September where they are to bloom and thinned out the next spring. Height to 5 ft.

594 KELWAY'S NEW LARGE HYBRIDS—The finest strain of Delphinium offered, producing very large flowers with long spurs and comprising a gorgeous array of colors and shades. Pkt....10c

595 BELLADONNA—This is the freest and most continuous blooming Hardy Larkspur. The clear turquoise blue of its flowers is not equalled for delicacy and beauty. Pkt.....10c.

595½ FORMOSUM—Beautiful spikes of rich blue flowers, with a white centre. Pkt

(See also ANNUAL LARKSPUR)



DELPHINIUM KELWAY'S HYBRIDS

Dahlia

A popular autumn flowering plant which will bloom the first season from seed if started early. Dahlias are well known and hardly need description. They are very free flowering and bulbs can be lifted in the fall and saved through to the following spring if kept in a place where they will not freeze. Many sports and new varieties are obtained from seed and they can be sown early in the house or greenhouse and transplanted when large enough to pots and set in the open ground when the weather has become settled and warm. Tender herbaceous perennials, 3 to 4 ft. high.

- 596 Single Mixed—An extra fine strain producing brilliant flowers running through a wide range of shades. Pkt... 10c
 597 Finest Double Mixed—Saved from choicest double flowers including shades of red, pink, maroon, yellow, white, etc. Pkt..... 10c
 (For DAHLIA ROOTS, see SUMMER FLOWERING BULBS.)

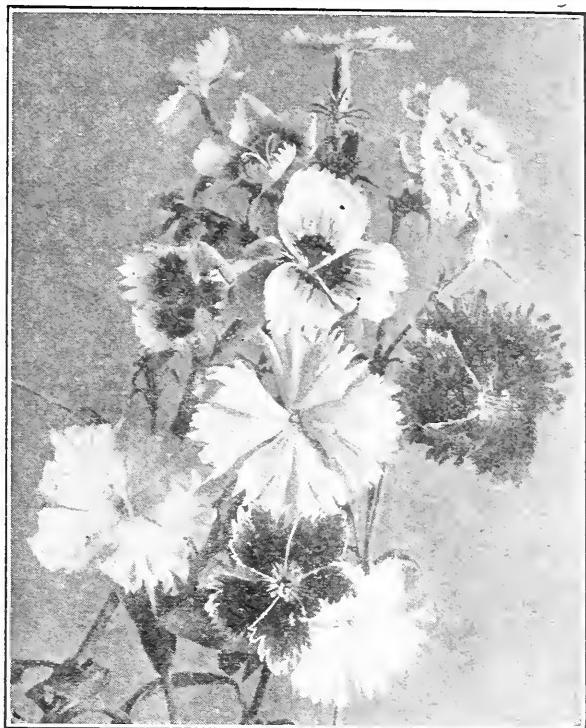
Daisy

ENGLISH—See Bellis Perennis.
 ORANGE RIVER—See Dimorphotheca.
 PARIS—See Chrysanthemum, Perennial Varieties.
 SHASTA—See Shasta Daisy.
 AFRICAN—See Arctotis.

DIANTHUS—(Pinks)

Many beautiful and profitable flowers are comprised under this heading, such as Carnations, Sweet William, etc., but the varieties we offer below are mostly hardy annuals. They are old-fashioned favorites, blooming profusely and suitable for bedding borders and cutting. Stems are of good length and strong: colors are brilliant and often sweet scented. Grow about 1 ft. high.

- 598 CHINENSIS Fl. Pl. (Double China Pink)—A mixture of double pinks comprising white to dark crimson shades and including purple and darker blotchings. They are unsurpassed in varieties and brilliant colorings. Pkt..... 5c
 599 HEDEWIGGI (Single Japan Pink)—A splendid mixture of single flowers of brilliant shades, brilliantly marked. Plants dwarf and very free flowering. Pkt..... 5c
 600 HEDEWIGGI, Fl. Pl. (Double Japan Pink)—Very double with deep fringed petals. Colors vary from white to rose, lilac, carmine, crimson, scarlet, purple, brown and almost black, spotted and striped. Pkt..... 5c
 HARDY PERENNIAL PINKS.
 601 Plumarius (Pheasant's Eye Pink)—A semi-double hardy variety clove scented. Flowers blush white shaded with deep crimson and maroon. Pkt..... 10c



DIANTHUS—VARIOUS SORTS

DIMORPHOTHECA AURANTIACA

(African or Orange River Daisy).

A showy hardy annual bearing large bright orange yellow flowers, 2 to 2½ inches across. Plants grow 1 to 1½ ft. in height. Its daisy-like flowers are produced on long stems. They are of brilliant orange color with black center and surrounded by a dark colored disk. It is well adapted for summer flowering in beds or borders. Seed can be sown in open ground in rows 1 to 1½ ft. apart, thinning out to 10 or 12 inches apart.

- 602 Choice Mixed Hybrids—Pkt..... 10c

ESCHSCHOLTZIA (California Poppy)

Very attractive hardy annuals growing about 1 ft. high which bear large single flowers on fairly long stems which are excellent for cutting. They bloom over a long season and a bed in full flower is very gorgeous. Foliage is finely cut, has bluish tinge of bloom delicate and attractive. Flowers are more or less saucer shape, various shades of yellow orange and orange crimson. Seed is sown early out of doors where they are to bloom, either broadcast or in drills, thinning after plants are well started.

- 603 Californica—Deep yellow with orange center indigenous to California and is the State flower. Pkt..... 5c
 604 Golden West—A very large, bright yellow sort with deep orange at the base of petals. Pkt..... 5c
 605 Crimson Flowering—Clear rosy crimson produced profusely. Very valuable addition to this class of plants. Pkt..... 5c
 606 Mixed—An excellent mixture including yellows, creamy white, scarlet, orange and crimson shades. Oz., 30c. Pkt..... 5c

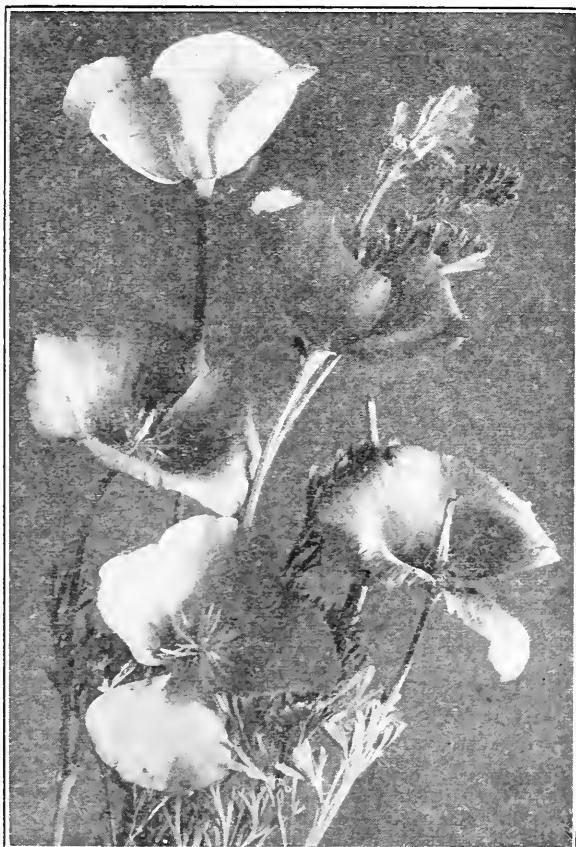
EUPHORBIA

Hardy annual growing about 2 feet high.

- 607 HETEROPHYLLA (Mexican Fire Plant)—Flowers formed in large bracts..... 10c
 608 VARIEGATA (Snow on the Mountain)—Leaves veined and margined with white..... 10c

EVERLASTING FLOWERS

See ACROCLINIUM, GOMPHRENA, HELICHRYSUM, RHODANTHE, XERANTHEMUM.



ESCHSCHOLTZIA CALIFORNICA

Forgetmenot (Myosotis.)

An old-fashioned favorite bearing in profusion clusters of dainty blue, five petal blossoms. It thrives best in a shady or moist situation. For blooming the first year, seed should be started indoors in February or March and transplanted when the weather is warm or they can be sown in open borders in March where they are to bloom, or in the fall. H. P. 6 to 8 inches in height.

609 Alpestris—Plants are compact, bushy habit; finely cut foliage. Flowers blue with very small eye. Pkt.... 5c

Four O'Clock (Marvel of Peru)

Old-fashioned flowers which are borne on erect, bushy plants, 2 to 3 ft. high. They bloom in greatest profusion and comprise many beautiful, brilliant colors. Flowers are large tube shaped, opening in the afternoon and remaining open all night, and close again in the morning. Many beautiful shades are comprised including white, red, striped, blotched, etc. Very desirable for borders and backgrounds for lower growing plants. Time of blooming from summer to late fall. Seed can be started early and transplanted if desired, or planted in open borders 2 to 3 ft. apart, thinning to one plant. H. A.

610 Mixed—Comprises all shades. Oz., 30c. Pkt..... 5c

Fox Glove (Digitalis)

Stately, old-fashioned perennials which are excellent for borders, producing large spikes of pendulous, brilliant colored flowers on upright stems. Height 3 to 5 ft. Seed may be sown early in the spring outdoors and thinned or transplanted or sown in the fall.

611 Mixed Colors—Pkt..... 5c

GAILLARDIA**ANNUAL VARIETIES**

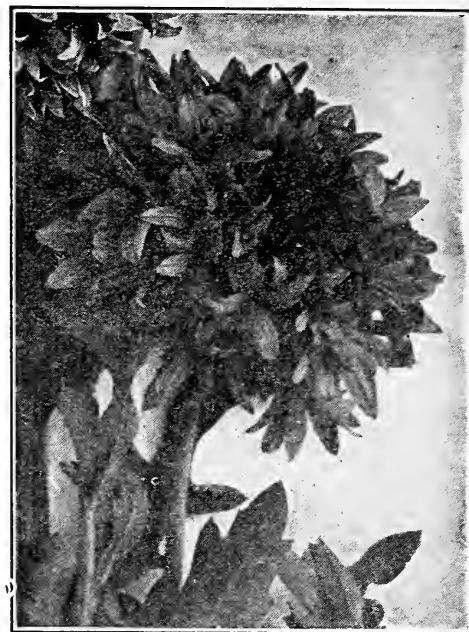
A splendid class of showy bedding or border plants which produce in greatest profusion daisy-like flowers 2 to 2½ inches across, comprising mostly yellow and red shades. Blooms are borne on long stems well above the foliage and are excellent for cutting. Single varieties somewhat resemble in shape miniature sunflowers, while the double form dense heads. Height 1 to 1½ ft. Seed may be sown early in the spring, thinned out or transplanted.

612 Picta—Single, purplish crimson and yellow. Plants about 1 ft. high. Pkt..... 5c

613 Lorenziana—Gaily colored flowers which are double, and have tubular petals. They bloom profusely from July until frost; splendid for cutting. Colors: yellow, orange, wine and claret. Plants grow 1 to 1½ ft. in height and will usually bloom the full season. Pkt..... 5c

HARDY PERENNIAL VARIETY

614 Kelway's Hybrids (Grandiflora)—A beautiful hardy perennial blooming the first season from seed. Flowers often 3 inches across with flat petals and comprising mostly orange and scarlet shades. This is the most beautiful strain of hardy Gaillardia ever offered and comprises the most gorgeous and brilliant shadings and colors. Pkt..... 10c

**GAILLARDIA LORENZIANA****Globe Amaranth (Bachelor's Button)**

One of the best of all "everlastings" which makes a showy border plant or for bedding as a background or foreground for other plants. It has small globular flower heads of brilliant colors, mostly white and crimson which can be cut soon after maturing and will retain their beauty throughout the winter.

The seed can be started in boxes and transplanted to where they are to bloom or sown in open border and thinned or transplanted to 1 to 1½ ft. apart. H. H. A.

615 Mixed—Comprising shades of crimson, purple, striped, white, etc. Height about 18 inches. Oz., 40c. Pkt... 5c

616 Dwarf Red (Nana Compacta Rubra)—A dwarf sort producing masses of brilliant purplish crimson blooms. Height one ft. Oz., 50c. Pkt..... 5c

GYPSOPHILA (Baby's Breath)**HARDY PERENNIAL**

Pretty free-flowering plants, succeeding in any garden soil. Their misty white panicles of bloom are largely used for mixing with other cut flowers.

617 Elegans Grandiflora Alba—This is an improved large flowering, pure white form of the annual Baby's Breath. Half-hardy Annual. Pkt..... 5c

618 Paniculata—White flowers, fine for bouquets; blooms first year if sown early. Hardy Perennial..... 5c

GODETIA

A hardy annual, growing 1 to 1½ ft. high which is one of the most attractive of garden plants for bedding and borders. The flowers are borne in short close spikes on leafy branches which produce very freely. They are single, of delicate shadings and satiny texture. Included in this class of plants is the Evening Primrose.

Seed can be sown outdoors where they are to bloom or if wanted early, start in hot beds. Can be used as pot plants as well as for bedding.

619 The Bride—Large, rich, satiny, white flowers borne in abundance. Pkt..... 5c

620 Lady Albemarle—Carmine and crimson; compact habit. Pkt..... 5c

621 Fine Mixed—Comprises many shades, white, pink, crimson, etc. Oz., 60c. Pkt..... 5c

GORDS—See page 64.

HELICHRYSUM (Straw Flower)

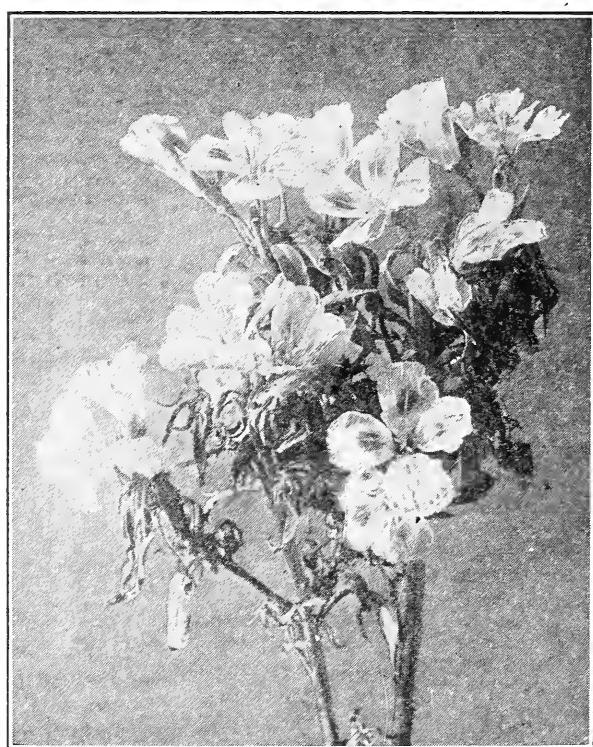
A hardy annual of the easiest culture; one of our best "Everlasting" flowers, the dried double bloom being very handsome in Winter bouquets. 2 feet.

622 Mixed—Pkt..... 5c

HIBISCUS (Rose Mallow or Marsh Mallow)**Hardy Perennial.**

Free blooming and desirable plants, 2 to 5 feet; producing flowers of great size, brilliancy and beauty, often 10 inches across.

623 HARDY MARVEL—Showy, ornamental shrub, growing to a large size and blooming the first year from spring-sown seed. Hardy as an oak and will thrive in any soil. The flowers often measuring 8 to 10 inches across, are gorgeous in colors, and bloom in great profusion from late July to frost. Mixed colors. Pkt..... 10c

**GODETIA THE BRIDE**

HELIOTROPE

A well known and popular class of tender annuals which are largely used as border and bedding plants and quite frequently grown in the house for winter blooming. They have a sweet odor resembling cherry pie. Flowers are blue, purple and white, borne in clusters.

Seed must be started early in the house, in shallow boxes and transplanted and moved to the garden after danger of frost. They are well adapted for partial shady situations and bloom continuously until frost.

- 624 **LEMOINE'S GIANT**—A mammoth flowering variety having enormous quantities of flowers and trusses sometimes measuring 10 to 12 inches across; fragrant, most delicious and powerful. Colors vary from pure white through the various shades of blue and purple to indigo. Pkt.....15c
625 **CHOICE MIXED**—A good strain of Heliotrope which will produce thrifty free flowering plants. Pkt.....10c

HOLLYHOCK

Upright and hardy perennials which are well known. They are largely used as a background for other plants or as a screen, attaining a height usually of 5 ft. The rich double blossoms range from deep yellow, white, pink, red, purple, etc., are very attractive.

The seed we offer produces the best double blooms resembling rosettes. Hollyhocks can be sown in open border, transplanting when the plants are large enough to a permanent position, setting 1½ to 2 ft. apart. They bloom the second season. Seed can also be sown in August.

- 626 **DOUBLE WHITE**—An improved strain producing perfect double flowers. Pkt.....10c
627 **DOUBLE PINK**—Soft rose color changing to darker pink with age. Pkt..10c
628 **DOUBLE SCARLET**—Very brilliant. Pkt.....10c
629 **DOUBLE YELLOW**—A bright lemon color. Pkt.....10c
630 **DOUBLE MIXED**—Comprises all shades. Pkt.....5c
631 **ALLEGHENY**—Flowers are distinct having edges of the petals finely fringed. They are large size, come fairly double, and are usually valuable on account of the fringed appearance of the petals. Our strain comprises a good range of soft rich colors. Pkt.....10c

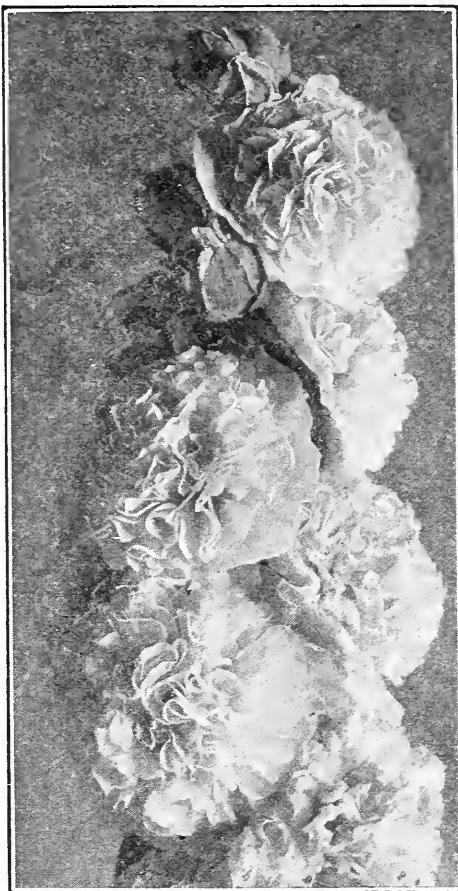
ICE PLANT—See page 65.

JAPANESE HOPS—See page 65.

JOB'S TEARS

- 632 Broad, corn-like leaves and hard, shiny seeds, which are sometimes strung and worn like neck beads. A. 2 ft. Oz., 15c. Pkt.....5c

KENILWORTH IVY—See page 65.



HOLLYHOCK

KOCHIA—*Tricophylla* (Mexican Fire Bush)

(Also called Burning Bush and Summer Cypress)

- 633 A quick growing foliage or hedge plant which forms symmetrical globe shaped plants about 3 ft high. The foliage is cypress-like in appearance being finely cut, clean green color. Early in the fall it is covered with innumerable little flowers which cause the plant to take on a reddish tinge—hence, the name Fire Bush.

Seed can be started early indoors and transplanted, or sown in open border and transplanted or thinned out. H. A. Pkt.....5c

LANTANA

A pleasing class of bedding plants which grow somewhat in shrub form and produce in late summer or autumn an abundance of Heliotrope like clusters of single flowers which change in color. Afterwards green berries are borne which turn deep blue. H. H. P. Height, 2 feet.

- 634 **FINEST MIXED VARIETIES**—Pkt.....5c

LARKSPUR—ANNUAL

- 635 **Dwarf Double Rocket**—Pkt.....5c
635½ **Flesh**—Pkt.....5c
HARDY LARKSPUR see Delphinium.

LATHYRUS

(Hardy Sweet Peas.)

These are useful for covering walls, stumps or trellises. The large clusters of flowers are not fragrant like ordinary Sweet Peas. The plants will live for years.

- 636 **Latifolius**—Finest mixed. Pkt.....10c

LINARIA

CYMBALARIA—See Kennilworth Ivy, Page 65.

LOBELIA

- 637 **Chrystal Palace**. Pkt.....10c
638 **Dwarf Compact**. Pkt.....10c

LYCHNIS

Few plants produce as bright flowers and bloom as continuously as Lychnis. A hardy perennial, but flowers the first season from seed if same is sown early. 2 feet.
639 **Finest Mixed Hybrids**—Plants are compact and bushy; colors include all the most brilliant shades, from pure white to deepest red. Pkt.....5c

MIGNONETTE

A popular hardy annual producing dense, cone shape spikes made up of thickly set flowers, yellow, orange, red, etc.

- 640 **Machet**—Large spikes, reddish-tinted. Pkt.....10c
641 **Allen's Defiance**—An excellent variety for cutting. Pkt.....10c



ALLEN'S DEFiance MIGNONETTE.

MARIGOLD

A very popular old-fashioned garden annual which is remarkable for its brilliant display of yellow and orange flowers which are borne in greatest profusion from early Summer till frost. The African varieties are tall, usually 2 to 3 ft. high and well adapted for large beds, backgrounds or mixed borders. The French are more dwarf and can be used for borders and bedding. All varieties have finely cut, bright green foliage.

Seed can be sown in open border where they are to bloom or if desired started early in the house but there is no special advantage. According to whether tall or dwarf they should be planted from one foot to 18 inches apart in rows 1½ to 2 feet apart.

642	AFRICAN DOUBLE ORANGE —Flowers about 3 inches in diameter imbricated and extremely double, in tints of primrose, orange and gold. Grows 2 to 3 ft. high. Oz., 75c. Pkt.....	5c
643	AFRICAN DOUBLE LEMON —Profuse bloomers; one of the best of the class. Desirable for shrubbery or mixed borders. Pkt.....	5c
644	AFRICAN DOUBLE MIXED —Comprises various shades and well adapted for large beds or mixed borders. Pkt.....	5c
645	FRENCH DOUBLE MIXED —Comprising all shades of yellow, orange, brown, striped, etc. Very double. Height 1 ft. to 18 inches. Pkt.....	5c
646	FRENCH COMPACT (<i>Signata Pumila</i>)—A most attractive dwarf French sort with small bright orange yellow flowers which is most effective for borders or massing. Height about 12 inches. Pkt.....	5c

MAURANDIA—See page 64.

MORNING GLORY—See page 64.

MOON VINE—See page 64.

NASTURTIUM

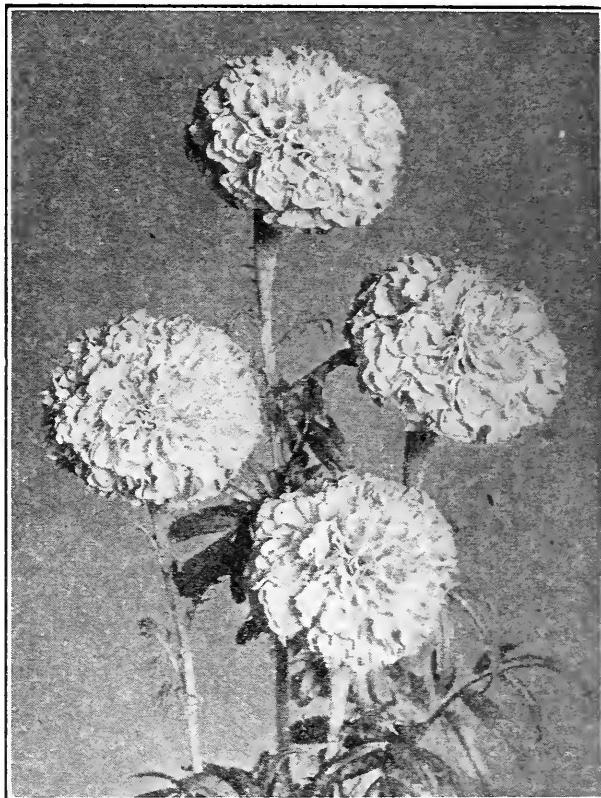
One of the most popular of tender annuals which is valuable alike for bedding, borders and cutting. Few plants are more easily grown or remain longer in bloom. Flowers are in many brilliant shades ranging from creamy white through rose, light pink and scarlets together with yellow, orange, brown, maroon, etc., and many flowers are brilliantly spotted. Blooms abundantly from early summer until late fall.

Seed is usually sown outdoors as soon as the weather is settled. If desired can be started in the house and transplanted.

DWARF VARIETIES

These make excellent bedding and border plants, usually attaining a height of about 1 ft. Bloom profusely.

647	Empress of India —A small compact plant with very dark foliage: deep scarlet flowers. Oz., 25c; ¼ lb., 60c; pkt.....	5c
648	Chameleon —Has varied colored flowers changing from day to day. Oz., 20c; ¼ lb., 50c; pkt.....	5c
649	Crystal Palace Gem —Sulphur, yellow spotted carmine. Oz., 20c; ¼ lb., 60c; pkt.....	5c
650	Golden King —Bright golden yellow. Oz., 20c; ¼ lb., 50c; pkt.....	5c
651	Pearl —Creamy white to pale yellow. Oz., 20c; ¼ lb., 60c; pkt.....	5c
652	Ruby King —Bright ruby red with salmon tints. Oz., 20c; ¼ lb., 50c; pkt.....	5c



AFRICAN MARIGOLD.

653	Rose —Bright, lively rose pink. Oz. 20c; ¼ lb., 50c; pkt.....	5c
654	Spotted King —Yellow with dark maroon blotches. Oz. 20c; ¼ lb., 50c; pkt.....	5c
655	King of Tom Thumbs —Bright scarlet; vivid green foliage. Oz., 20c; ¼ lb., 50c; pkt.....	5c
656	DWARF MIXED —Comprises all varieties and shades. Oz., 15c; ¼ lb., 35c; pkt.....	5c

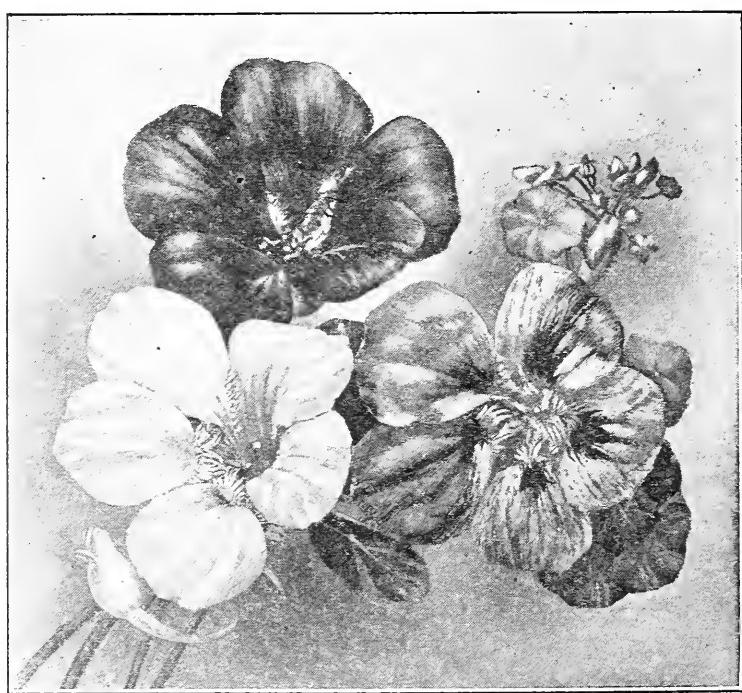
TALL VARIETIES

These are excellent for growing in beds and borders where there is plenty of room for trailing or for light trellises and for hanging-baskets, vases and window boxes. Height usually 4 to 5 ft.

657	Dark Crimson —Oz., 25c; ¼ lb., 60c; pkt.....	5c
658	Chameleon —Tall variety with varied colored flowers continually changing from day to day. Oz., 25c; ¼ lb., 60c; Pkt.....	5c
659	King Theodore —Rich, velvety, crimson flowers, large size; dark green leaves. Oz., 20c; ¼ lb., 60c; pkt.....	5c
660	Orange —Brilliant shade. Oz., 20c; ¼ lb., 50c; pkt.....	5c
661	Spotted —Yellow, spotted with dark maroon blotches. Oz., 20c; ¼ lb., 60c; pkt.....	5c
662	Purple —Purple crimson, very effective. Oz., 20c; ¼ lb., 50c; pkt.....	5c
663	TALL MIXED —Comprises all shades in splendid mixture. Oz., 15c; ¼ lb., 35c; pkt.....	5c

OTHER TALL SORTS

664	LOBBIANUM —Smaller in leaf and somewhat more compact than the ordinary tall varieties but very free flowering, having richer and more varied colored blooms. Should be more largely used as it is one of the most effective of the trailing sorts. Mixed colors. Oz., 15c; ¼ lb., 40c; pkt.....	5c
665	VARIEGATED-LEAVED —A unique sort which has variegated leaves, varying from creamy white to deep green. Its flowers comprise a number of brilliant shades and it is very effective as a foliage plant in addition to its many brilliant colors. Mixed colors. Oz., 20c; ¼ lb., 60c; pkt.....	5c
666	TALL IVY-LEAVED SCARLET —A handsome running sort with star-like pointed leaves, rich veined with white. Flowers are of medium size, distinct in form, having somewhat of a star-like shape. The foliage somewhat resembles English Ivy which in contrast with the glowing scarlet blooms, makes it very effective. Oz., 25c; ¼ lb., 75c; pkt.....	5c



NASTURTIUMS. VARIOUS SORTS.

NICOTIANA

(Sweet Scented Tobacco Plant)

- One of the easiest annuals to raise and one of the most effective. The blossoms in shape are not unlike a Petunia blossom, but with a longer tube. The flowers open toward evening and emit a powerful perfume. H. A.
- 667 **Affinis**—Large, pure white flowers of delicious fragrance. If taken up in the fall, cut back and potted, they will bloom all winter. Pkt..... 5c
- 668 **Sanderae Hybrids**—A showy and profuse flowering, half-hardy annual, giving a continuous display of brilliant flowers through Summer and Autumn. The plant is of branching, bushy habit, 2 to 3 feet high, and carries the flowers in clusters. The flowers measure from 1 to 2 inches across and remain open all day. Many colors, mixed. Pkt..... 5c

NIGELLA

(Love in a Mist, or Devil in the Bush.)

- 669 **Miss Jekyll**—Lovely variety giving an abundance of long-stemmed flowers which are of a clear cornflower-blue, prettily set in slender elegant foliage. One of our most attractive annuals. The plants are extremely hardy, and an Autumn sowing produces the best specimens for flowering in the following summer. Height, 18 inches. H. A. Pkt..... 10c
- 670 **Finest Mixed**—Pkt..... 10c

OXALIS

A pleasing class of dwarf growing plants with flowers of moderate size, in many brilliant colors. They are very desirable for greenhouses or in pots, hanging-baskets, rockeries or vases. Also desirable for naturalizing especially in moist or shady places. Colors comprise shades of white, pinks, yellow, etc.

- 671 **Mixed Varieties**—Pkt..... 10c

PANSIES

One of the most charming of all hardy annuals and deservedly popular. Their modest flowers of brilliant colorings, markings and shades are produced extremely early in the spring and when the weather is not too hot, continue to afford a mass of bloom until mid-summer. There is almost an infinite variety of colors.

The old strains were confined to a few flowers of moderate size but in the improved sorts, which we offer below, there is a wonderful improvement from the old-fashioned Heart's Ease.

Seed is usually sown in the fall, wintered over in cool frames and plants transplanted to beds when in bloom very early in the spring.

Seed, however, may be started early in the spring, transplanting to where they are to bloom as soon as the plants are fairly large. Our strain embraces many choice sorts and mixtures as well as the best sorts in separate colors.

- 672 **JMC FANCY MIXTURE**—A particularly fine strain comprising all the best shades and brilliantly marked. It is one of the most effective and largest flowered sorts and the flowers are of good substance on stiff stems. Plants are thrifty and extremely free flowering. When properly grown it is of faultless form and wonderfully large. $\frac{1}{8}$ oz., \$1.50. Pkt..... 25c

- 673 **BUGNOT'S MIXED**—A very large stained sort of exceptionally fine quality; most of the flowers being blotched or stained, each petal is marked and the margins usually veined. Many brilliant colors. $\frac{1}{8}$ oz., 60c; pkt..... 15c

- 674 **Azure Blue**. Velvety violet-blue. Pkt..... 15c

- 675 **Ruby**. Superb Red. Pkt..... 15c

- 676 **Yellow Giant**—Brilliant golden yellow with black eye. $\frac{1}{8}$ oz., 25c. Pkt..... 15c

- 677 **Giant King of Blacks**—Brilliant shiny black, almost coal black. $\frac{1}{8}$ oz., 30c. Pkt..... 15c

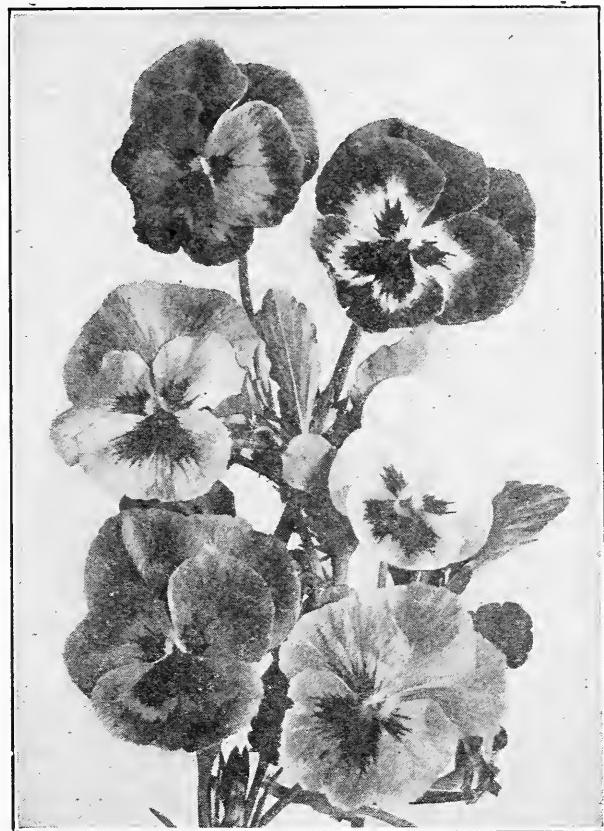
- 678 **Giant Lord Beaconsfield**—Purple violet shading to light blue on the upper petals. $\frac{1}{8}$ oz., 50c. Pkt..... 15c

- 679 **Giant Snow-Flake**—Pure satiny white. $\frac{1}{8}$ oz., 50c. Pkt..... 15c

- 680 **Giant Peacock**—Ultramarine blue, blotched darker. $\frac{1}{8}$ oz., 50c. Pkt..... 15c

- 681 **Giant Trimardeau Mixed**—Flowers are of many brilliant shades, including the above sorts and a score of others. Most flowers have brilliant markings and blotches. On account of its large size and thrifty habit, this is one of the most popular strains for commercial uses. $\frac{1}{8}$ oz., 30c; $\frac{1}{4}$ oz., 50c; oz., \$1.75; pkt... 15c

- 682 **CHOICE MIXED PANSY**—A good English strain, comprising many shades and colors. The flowers are fairly large size, well marked and very free blooming. $\frac{1}{4}$ oz., 35c; Pkt..... 10c



JMC FANCY MIXTURE

PETUNIA

One of the most desirable half-hardy annuals for bedding and particularly effective if massed. It is also desirable for window-boxes or vases.

For earliest blooming outdoors, seed is started in shallow boxes and shifted to pots, then transplanted to beds. Or seed may be sown in open border where they are to bloom, thinning out as necessary or transplanting, usually allowing about 1 ft. to 18 inches between plants.

- 683 **Rosy Morn**—Soft carmine-pink with white throat; makes a very dainty and at the same time effective border. Pkt..... 15c

- 684 **General Dodds**—Velvety dark red, nearly black; a scarce color among Petunias. Dwarf, compact bushes. Pkt..... 15c

- 685 **Howard's Star**—This grand petunia has flowers 2 to $2\frac{1}{2}$ inches in diameter, of fine texture, with more or less veining. Ground color a crimson maroon. In the centre of each flower is a five-rayed star of light blush pink or white. Height of plant, $1\frac{1}{2}$ to 2 feet. Pkt..... 15c

- 686 **Ruffled Giants**—An improved strain of California Petunias, flowers often measuring 3 to 4 inches across. Its colors comprise all shades from purest white through rose, pink, carmine and purple. Most of the flowers are brilliantly marked, veined and fringed. Pkt..... 25c

- 687 **Large Flowering Mixed**—A very select English strain which has very large flowers and an exceedingly fine range of shades and markings. Pkt..... 10c

- 688 **Choctaw Single Mixed**—A fair mixture of good coloring which bear moderately sized flowers and extremely free flowering. Oz., 75c. Pkt..... 5c

- 689 **Double Fringed Mixed**—Many brilliant colors; flowers beautifully fringed. Pkt..... 25c

PHLOX

One of the most pleasing classes of Hardy Annuals and Perennials which are deservedly popular as they are unexcelled in a magnificent display of their many and brilliant colored flowers. They grow in somewhat bush-like form and with many broad flat top clusters of nearly round flowers, which range through various shades from pure white, rose, pink, crimson to very dark maroon. Some of them are called Oculata Varieties, having a distinct dark eye surrounded by a lighter shade. They are especially attractive in masses or ribbon beds of contrasting colors and in addition to their fine bedding qualities are excellent for window-boxes; sometimes used in vases and hanging baskets. They bloom early in the season and last in an uninterrupted succession until fall. Are excellent for cutting and graceful in decoration.

PHLOX

Seed can be sown out of doors where they are to bloom, thinning out as may be necessary or they can be started in boxes and transplanted if desired. The Perennial Varieties can be easily raised from seed and seed can either be sown in spring or in the fall. If sown in the fall they bloom the following season.

PHLOX DRUMMONDII—Grandiflora.

Hardy Annuals growing about 2 ft. high producing the largest size blooms in brilliant display and range of colors.

690	Alba—Pure white in large clusters. Pkt.	10c
691	Rose—Soft rose with distinct eye. Pkt.	10c
692	Crimson—Brilliant shade. Pkt.	10c
693	Alba Oculata—Pure white with crimson eye. Pkt.	10c
694	Atropurpurea—Dark purplish maroon. Pkt.	10c
695	GRANDIFLORA MIXED —An extra choice strain of the best large flowered varieties, unexcelled in profusion and brilliancy of bloom and color. Oz., \$1.00 Pkt.	10c
696	CHOICE MIXED —The ordinary Phlox Drummondii. Oz., \$1.00 Pkt.	10c
697	STAR OF QUEDLINGBURG —A dwarf growing sort which has bright star-shaped and fringed flowers which are exceedingly attractive. They have many brilliant colors, some of them solid colors edged with other shades and should be largely planted. Pkt.	10c
698	PERENNIAL —These produce large clusters of brilliant colors which remain in bloom quite a long time. Plants usually attain a height of 3 to 4 ft. It is one of the best Herbaceous Perennials for large beds or massing with shrubbery, etc. Choicest Mixture. Pkt.	10c

PINKS—See Dianthus.

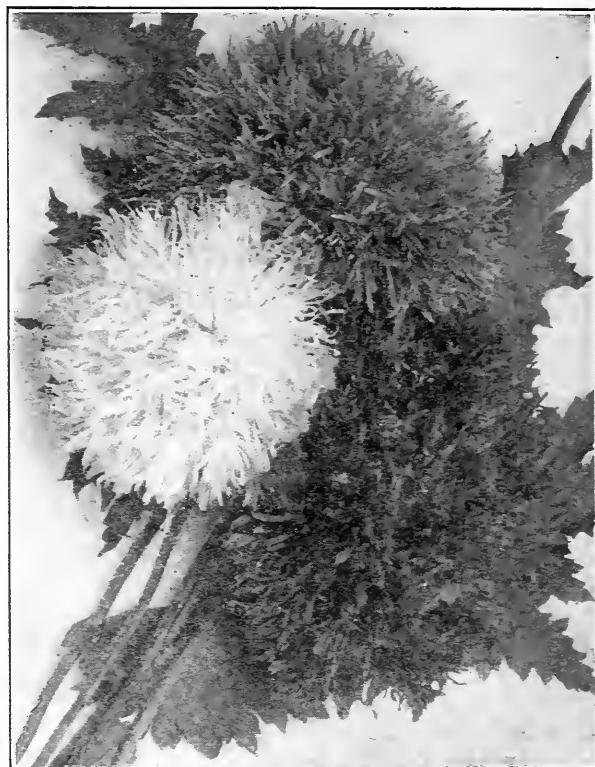


PHLOX DRUMMONDII—Grandiflora.

PERENNIAL POPPIES

These should be in rows about 1½ ft. apart and 1 ft. apart in the row. Seed may be sown outdoors either in spring or fall

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|-----|---|-----|
| 699 | ORIENTALE, SCARLET —One of the most showy of all Perennial Poppies. Grows about 2 ft. high. Flowers are very large, single, a gorgeous scarlet shading to deep purplish black at the base. Flowers are borne on long stems and splendid for cutting. An excellent sort for mixed beds of Perennials or for borders. Pkt. | 10c |
| 700 | Oriental Mixed. Pkt. | 10c |
| 701 | ICELAND —A beautiful hardy perennial Poppy which should be grown in every garden. It has lovely light yellow and orange flowers, produced on long stiff stems which are excellent for cutting. They bloom continuously from April throughout the summer until fall. Height about 1½ ft. Pkt. | 5c |



DOUBLE POPPIES. VARIOUS SORTS.

POPPIES

Well known and popular Annuals and Perennials which produce flowers varying from moderate sized single cup-shape blooms to very much larger flowers sometimes 4 inches across both single and double. Colors are extremely vivid and brilliant; very graceful, hence, fine for cutting and for home decoration. Grown in beds and masses nothing is more brilliant in the garden and they are of easiest culture.

Seed is sown early out of doors where they are to bloom, thinning out according to size of plants from 6 to 12 inches apart. To insure a long season of blooming the flowers should be cut regularly and no pods allowed to form.

ANNUAL VARIETIES

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| 702 | SHIRLEY —A beautiful sort which blooms a long season and bears large single flowers of flat but artistic shape. Most petals are of very silky texture with an intense sheen. Others plain, some crumpled, some like tissue paper and others wavy. Colors range through shades of pink, rose, scarlet, carmine and are generally edged with lighter shades. If cut before blossoms are fully expanded they will open in water and remain fresh for full day. Height about 18 inches. Choicest Mixed Colors. Pkt. | 5c |
| 703 | TULIP —One of the most brilliant of poppies, bearing bright scarlet tulip shaped flowers with a dark spot at the base of each petal. It makes a gorgeous display in masses. Grows about one foot high. Pkt. | 5c |
| 704 | CARDINAL —A double sort having very large blooms and the petals so finely cut that the blossoms have the appearance of a large ball of brilliant scarlet silk. It is one of the finest of all double sorts. Height about 2 ft. Pkt. | 5c |
| 705 | " MIKADO " (The Striped Japanese Poppy)—Very distinct and beautiful; the large blooms are brilliant scarlet and white, with elegantly curved and fringed petals. Pkt. | 5c |
| 706 | MAID OF THE MIST —One of the best double white annual sorts producing immense heads. Petals are small and fringed and blooms are immense balls of snowy whiteness. Excellent contrast to Cardinal. Height 2 ft. Pkt. | 5c |
| 707 | CARNATION FLOWERED MIXED —A large, showy, double, fringed variety of various colors. Height about 2 ft. Pkt. | 5c |
| 708 | PEONY FLOWERED MIXED —Very large, double Poppies with somewhat broader petals in many pleasing shades. Height about 2 ft. Pkt. | 5c |

PORTULACA (Moss Flowers)

These are excellent for bedding, vases, rockeries or window-boxes, producing a dazzling display of colors. Single varieties have cup shaped flowers about 1 inch across, range through many shades of white, pink, yellow, orange, red and some are striped. The Double varieties have narrow petals which are set closely and form full heads. Stems and leaves are succulent, creeping and ornamental. They will stand a great amount of drought and bloom through a long season.

Seed should be sown outdoors after the weather is warm, covered very lightly and germinate better if sown in small rows rather than broadcast. Thin to 2 or 3 inches apart. If sown broadcast soil should be sifted over them so as not to cover too deep. A bright, sunny situation is particularly suited to Portulaca. Height about 9 inches.

- 709 Single Mixed—Comprises a wide range of colors.
Pkt. 5c
- 710 Double Mixed—Many beautiful shades. Pkt. 10c



PRIMULA

Primula

One of the best green house pot plants blooming in winter and especially admired on account of its brilliant colored, finely formed flowers and fine foliage. It can be had in perfection from November until spring. Flowers are borne in large clusters and comprise many brilliant shades varying from white through pinks, crimson to intense maroon. Individual flowers measure about 1 inch in diameter and fringed. Greenhouse perennial, growing 8 to 10 inches in height.

Seed should be sown in shallow boxes from April to the last of July, covered lightly and transplanted to small pots when ready to handle, then shifted to larger pots in which they are to bloom.

- 711 Chinese Fringed (*Chinensis Fimbriata*)—Choice mixed.
Large flowering. Comprising all shades. One of
the best strains grown. Pkt. 25c
- 712 Obconica—A somewhat smaller growing sort which is
very free flowering, and not only desirable for pots but
can be used out of doors in sheltered beds. Flowers
are not so large as the preceding sorts. Height
about 9 inches. The color is white shaded with a
light tinge of lilac. Pkt. 10c

Hardy Primroses

These are among the best of the early spring-blooming plants. Half hardy perennial.

- 713 Auricula. Finest mixed. Extra choice; saved from a
prize collection. Pkt. 10c
- 714 Vulgaris. True English Primrose; canary yellow, fra-
grant flowers. Pkt. 10c

Pyrethrum, Aureum (Golden Feather)

Well adapted for bedding, borders and edgings, its bright, golden foliage contrasting delightfully with the dark green shades of other plants. The seed can be sown early out doors, thinned out as desired, or started earlier in doors and transplanted. The flowers are white, daisy like, borne in clusters. Height 1 foot.

- 715 Pkt. 5c

RICINUS (Castor Bean)

A magnificent sub-tropical plant which attains a great height and is especially desirable for centers of large beds or as backgrounds for other flowers or foliage plants.

The foliage is of various kinds some light green leaves with light stems and others darker shade and dark stems. It is grown for its foliage almost exclusively as the flowers are insignificant. Height according to soil, moisture and conditions, varies from 6 to 15 ft. H. H. A.

- 716 ZANZIBARIENSIS—Grows to immense size. Leaves sometimes measure 30 inches across and range in color from bright green to deep bronze. Choice mixed colors.
Oz., 20c. Pkt. 5c
- 717 MIXED SORTS—A desirable mixture of all varieties.
Oz., 15c. Pkt. 5c

RUDBECKIA

See Cone Flower.

Salpiglossis

A very showy, half-hardy Annual which is desirable both for bedding or border plants. Has richly colored funnel-shaped flowers of many shades including yellow, buff, crimson and scarlet and extend through to purple and almost black.

- 718 TALL FINEST MIXED—Height 2 ft. Pkt. 5c

SALVIA (Scarlet Sage)

One of the most useful and effective bedding plants which produces immense masses of brilliant Turkey Red flowers from early in the season, continuing in uninterrupted succession until frost. Blooms are borne on long spikes well above the foliage and continue in good condition a long time. Spikes are often 8 to 10 inches long and have 30 to 40 tube-like flowers, borne in a feathery manner on each side of the stem.

Seed should be started in boxes, hot beds or greenhouse, transplanted and set out of doors after the weather has become warm. H. H. P. Blooming the first season.

- 719 SPLENDENS—Tall growing sort with dark green foliage and bright firey scarlet blooms. Height 2½ to 3 ft. ¼ oz., 60c; oz., \$2.00; pkt. 10c
- 720 BON FIRE—A uniformly dwarf sort which blooms earlier than other sorts and remains in flower the whole season. The plant is literally covered with brilliant red flower spikes and the effect of even a single plant is remarkable. Height about 2 ft. Pkt. 10c

- 721 SHASTA DAISY—A hardy, robust variety of Perennial Chrysanthemum, bearing large daisy-like flowers, which sometimes measure 4 inches in diameter. The petals are set in 3 or 4 rows, long, slender snow-white and surround a small yellow eye. The flowers are borne on long, stout stems, sometimes 18 inches to 2 feet long, hence are splendid for cutting. They are desirable for beds or borders, being very free blooming and easily grown from seed. Height 3 to 4 feet. Pkt. 10c



SHASTA DAISY

SCABIOSA (Mourning Bride)

One of the old fashioned popular Annuals which produce an abundance of many colored flowers which are excellent for cutting. The blossoms are borne on long stems, are fragrant, double, and somewhat in the shape of a pin cushion. It makes an effective garden plant for bedding or borders.

Seed can be sown in open border and thinned out from 1 to 1½ ft. apart. H. A. growing 2 to 2½ ft. high.

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|---|----|
| 722 Double White—An excellent sort producing large flowers which are excellent for florists' use or home decoration. Pkt..... | 5c |
| 723 Double Yellow—Pkt..... | 5c |
| 724 Double Purple—Pkt..... | 5c |
| 725 Dwarf Double Mixed—Comprises a wonderful brilliancy in shades and colors, excellent for small beds or low borders. Height about 1½ ft. Pkt..... | 5c |
| 726 Tall Double Mixed—A splendid sort for large beds or borders. Comprise many beautiful colors. Height 2½ ft. Pkt..... | 5c |

SCHIZANTHUS

(Butterfly Flower or Poor Man's Orchid)

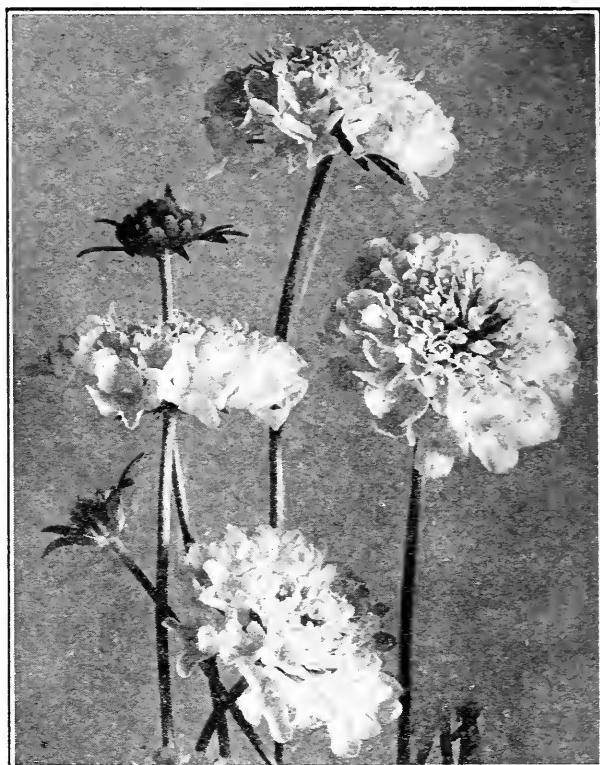
An attractive hardy Annual growing about 20 inches high, which is of neat, compact growth with finely cut foliage. The plant bears very attractive flowers ranging in colors from white to purple and are shaded from their edges to throats with darker colors. Flowers resemble somewhat the butterfly and are borne in clusters or spikes. Seed can be sown outdoors after danger of frost or started earlier indoors and transplanted.

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|----------------------------------|----|
| 727 Finest Mixed Colors—Pkt..... | 5c |
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SENSITIVE PLANT (Mimosa Pudica.)

It is chiefly attractive from the extreme irritability of its leaves which close or droop at the slightest touch or in a strong breeze. T. A. Height 1½ ft.

- | | |
|---------------|----|
| 728 Pkt | 5c |
|---------------|----|



SCABIOSA—DOUBLE WHITE

STOCKS (Gilliflower)

Stocks last a long time in bloom, are beautiful, fragrant and satisfactory.

Stock seed may be sown in the open ground, or in the hotbed or cold frame, but if transplanted, let this be done when the plants are small, just out of the seed-leaf, or the plants become slender and never make good plants nor flower well. Transplant 1 foot apart.

LARGE-FLOWERING 10-WEEK STOCKS

The favorite sort for bedding. Grows about 1 foot high.

- | | | | |
|------------------------------|-----|---------------------|-----|
| 728½ Purple..... | 10c | 730 Canary..... | 10c |
| 729 Blood Red..... | 10c | 731 Light Blue..... | 10c |
| 729½ Pure White..... | 10c | 732 Crimson..... | 10c |
| 733 Good Mixed. All colors.. | 5c | | |

MAMMOTH FLOWERING

This very pleasing class of Hardy Annuals should be more largely used in the garden as they produce dense spikes of very fragrant and beautiful rose-like double flowers in a wide range of colors.

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|---|-----|
| 734 Princess Alice—A tall growing branched Stock producing a large number of white, double blooms which are most excellent for cutting. Pkt..... | 10c |
| 735 Beauty of Nice—A late blooming sort which is most desirable for cut flowers and excellent for decoration. Flowers are very double, pure white. Pkt..... | 10c |
| 736 Large Flowered Mixed — A splendid mixture of double, 10 Weeks' Stock. It comprises shades of white, red, purple, lavender, maroon, etc. Pkt..... | 5c |

SUNFLOWER (Helianthus)

Hardy Annual.

Of easy culture, and the newer sorts are among the most ornamental and effective of all garden annuals. The single flowering sorts are indispensable for cutting. Bloom early and continue until frost.

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|---|-----|
| 737 CHRYSANTHEMUM-FLOWERED—Fine, perfectly double golden flowers, resembling Japanese chrysanthemums; 6 to 10 inches in diameter. Plants grow to the height of 5 to 6 feet. Oz., 50c. Pkt..... | 10c |
| 738 PURPUREUS HYBRIDS—(New)—In this class of sunflowers the original yellow has almost completely disappeared. Purpureus refers to purple-red shades, but all the flowers will not be of a brilliant scarlet red color. Shades of the most delicate pink to the deepest purple are predominant in this mixture. 3 to 4 feet. Pkt..... | 10c |
| 739 RED—(New)—The flowers are of a chestnut red color, which appears as a ribbon around the centre, while the points of the petals are tipped yellow. Grows to a height of 6 feet. Pkt..... | 15c |
| 740 STELLA—Height, 3 to 4 feet. Flowers star shaped, of brightest golden yellow, with dark centers. They are suitable for cutting. Pkt..... | 10c |



STOCKS—BEAUTY OF NICE

SWEET PEAS

How to Grow Fine Sweet Peas.—The general opinion is that Sweet Peas being common and hardy can be planted anywhere, which accounts for a lot of failures. There is no reason why everyone should not have fine flowers if they will observe a few simple rules. First of all, plant early, just as soon as the ground can be dug and is not sticky. Dig deeply. If you are growing sweet peas every year, try and prepare your ground in the Fall, and dig 18 inches deep, mixing sheep manure thoroughly in the subsoil. The surface soil in which the seed is sown should not contain manure. If you start in the Fall you will find you can sow earlier in the Spring. Cover the ground an eighth of an inch with sheep manure and then dig in and mix thoroughly with the soil. Sow the seed three inches deep if on sandy soil, or two if in clay. Sow thinly unless you have the courage to pull them out after they come up. You can't have fine flowers through the season when plants are very thick. Two or three inches apart, or better, four inches if you want big flowers. Cultivate as soon as they are up and keep cultivating. Stake them as soon as the rows show plainly. For the first month they scarcely make any growth above ground, but don't need water unless the season is very dry. Later on, when they are showing vigorous growth, a thorough watering twice a week will help wonderfully, if there is not sufficient rain. Don't plant them alongside a house, under trees or close to a board fence and expect much from them. They need an open space.

The improved types of Sweet Peas are so wonderfully superior to the old fashioned sorts, that they have become one of the most popular flowers in America. We offer below two distinct types, as follows:

The **Grandiflora** types are large flowered, robust growing Sweet Peas, which are very free blooming, and comprise all shades, markings and colorings to suit the most fastidious taste. As a general rule, they are best for general planting, costing less and giving good returns.

The **SPENCER** type or "Orchid Flowered" are very much improved, large flowered varieties most of which have wavy, fluted and frilled petals. They comprise a wonderful collection of shades and colors and of the largest and finest types of bloom. Spencers are very shy seeders, growing higher than the ordinary "Grandiflora" types. They do not require such constant picking as the Grandiflora sorts, hence even if picking is neglected will bloom longer.

INSECT REMEDIES—For the Black Fly or *Aphis*, spray with a solution of Tobacco or Kerosene Emulsion. For Red Spider spray with clear water.

INOCULATION—We cannot recommend too strongly that Sweet Pea seed be treated with Inoculation Bacteria before planting. We have had it prepared especially for this crop. It is easy to treat the seed and in nearly all cases will produce a most wonderful improvement in the growth and flowering this crop. All legumes have to make a large amount of nodules on the roots to make a thrifty growth.

INOCULATION FOR SWEET PEAS—Price per small bottle, 50c. The small bottles are sufficient for from 1 oz. to 1 lb. of seed.

1 ounce sows about 50 ft. In small gardens rows can be 3 feet apart. For field culture, should be wider.

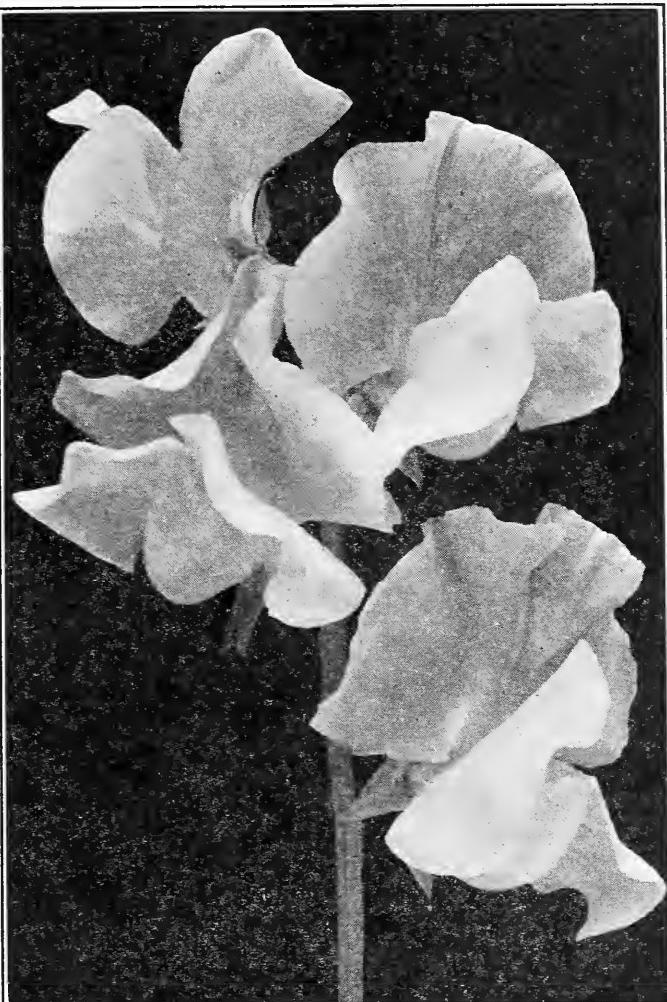
Grandiflora Sweet Peas

These may be called the Eckford Class and comprise many beautiful sorts. They should be picked continuously and not allowed to wither or pods to form; otherwise stop blooming soon. There are two classes, the "hooded or shell-shaped" and "open" form.

PRICE ALL VARIETIES; PKT., 5c; OZ., 15c; $\frac{1}{4}$ LB., 40c; POUND PRICES ON REQUEST.

Colors:—

- 741 **White. BLANCHE BURPEE**—Large pure white flowers, with large expanded form. Very free flowering.
- 742 **DOROTHY ECKFORD**—Flowers very large, pure white, shell shaped, extra good substance. One of the best of this class.
- 743 **EMILY HENDERSON**—Early, free flowering, clear white. Very popular.
- 744 **Primrose—HON. MRS. E. KENYON**—Clear primrose, yellow, bold, giant-hooded flowers.
- 745 **Pink and White. BLANCHE FERRY**—A very early blooming variety, which, while an old sort, is still one of the most popular. Standard, medium size, open form, color bright rose. Wings, large, rounded and nearly white.
- 746 **Light Pink. AGNES ECKFORD**—A delicate shade of light pink, medium large in size and of hooded form.
- 747 **DAINTY**—The flowers are hooded form, white, edged with light pink, borne on very long stems.



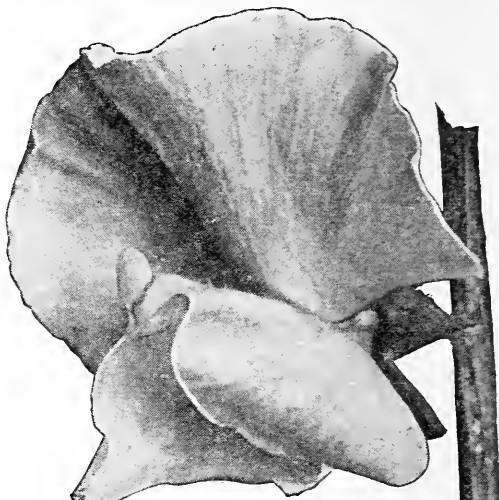
WHITE SPENCER SWEET PEAS

- 748 **Pink and Salmon. JEANNIE GORDON**—Standard bright rose; wings primrose tinted with light rose.
- 749 **AMERICA**—White ground, striped and flaked with orange salmon pink. Very large hooded form.
- 750 **Scarlet. KING EDWARD VII**—A fine, bright crimson scarlet or pure red of largest size. Flowers open form, well expanded. It is as fine color as Fire Fly, of larger size, better form and more sun-proof. One of the best scarlets.
- 751 **Lavender. LADY GRISSEL HAMILTON**—A large flower similar in color to Countess of Radnor but nearer blue. It is one of the best of this shade. Has a large hooded form.
- 753 **Blue and Purple. DUKE OF WESTMINSTER**—Standard purple; wings purple shading to violet. Very large size, hooded form.
- 754 **NAVY BLUE**—A true blue quite distinct. Standard indigo and violet; wings navy blue shading to light blue. Flowers medium size; semi-hooded form.
- 755 **Mauve and Purple. MRS. WALTER WRIGHT**—A splendid sort, similar to Dorothy Tennant, but larger. It is very large, rosy purple, changing to rich bluish purple; hooded form.

Spencer Sweet Peas

These are the largest and most beautifully formed Sweet Peas. They are produced abundantly on long strong stems and will bear longer than the Grandiflora types.

756	APPLE BLOSSOM SPENCER —Very large, bold flower of best Spencer form. Standard very bright rose, wings primrose with flush of rose tint. A grand robust variety. Oz., 35c. Pkt.....	10c
757	ASTA OHN SPENCER —The best lavender Sweet Pea. Is more truly a soft pinkish lavender self. Flowers are very large and beautifully waved. A very charming variety. Oz., 35c. Pkt.....	10c
758	CLARA CURTIS SPENCER —A beautifully waved cream, good substance, stems usually having four large flowers—a superior strain of Primrose Spencer. Oz., 25c. Pkt..	10c
759	COUNTESS SPENCER —The original giant flowered Spencer, with finest waved standard and wings clear pink, deepening somewhat towards the edge, but almost self colored. Still one of the best Sweet Peas of today. Oz., 35c. Pkt.....	10c
760	EVELYN HEMUS SPENCER —Cream color edged with terra cotta pink, like a picotee. Oz., 40c. Pkt.....	10c
761	FLORENCE MORSE SPENCER —Standard richly flushed with a beautiful and distinct shade of pink; wings soft blush pink, giving the flower a charming appearance; very large and wavy. One of the prettiest of Sweet Peas. Oz., 35c; Pkt.....	10c
762	KING EDWARD SPENCER —The best pure red Spencer, very large, with especially immense wings. Every one should grow this variety. Our strain is quite sunproof. Oz., 30c. Pkt.....	10c
763	MARIE CORELLI —A bright glowing crimson, almost self color. Fine large flower, beautifully waved. Oz., 35c. Pkt.....	10c
764	MRS. WALTER WRIGHT SPENCER —A beautiful mauve color, changing to reddish violet. A very large expanded form. Oz., 35c. Pkt.....	10c

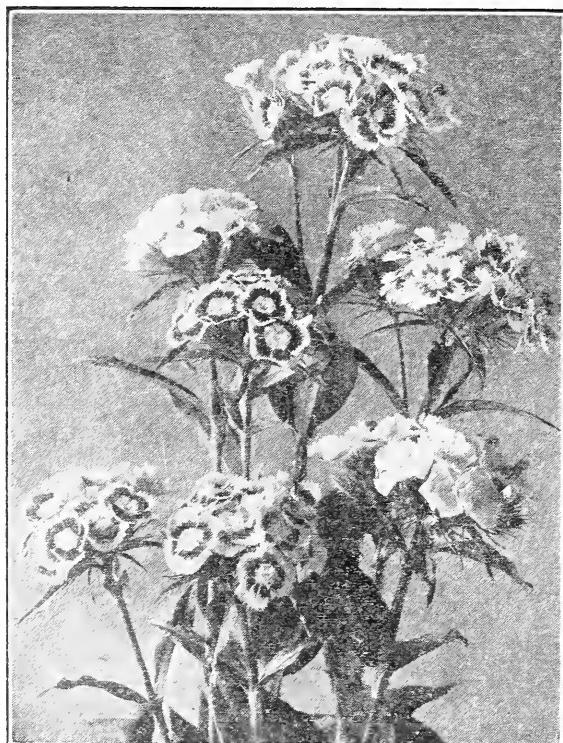


COUNTESS SPENCER SWEET PEA.

765	OTHELLO SPENCER —Of immense size, with large, drooping wings, rich maroon, very dark and adapted for many attractive combinations. One of the best dark Sweet Peas. Oz., 40c. Pkt.....	10c
766	SENATOR SPENCER —A very large and attractive Spencer variety. Chocolate and seal brown, striped, flaked and mottled on ivory white; very distinct and novel and one of the very largest in size. Oz., 40c. Pkt.....	10c
767	WHITE SPENCER —The best Spencer white. Flowers very large and of magnificent Spencer waved form. Stems as a rule carry four blossoms. Oz., 40c. Pkt... 10c	10c
	SWEET PEA MIXTURES	
768	JMC BEST GRANDIFLORA MIXTURE —A wonderful combination consisting of the best Named varieties made up by ourselves and combined in pleasing and harmonious range of colors. Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 50c; lb., \$1.50.	
769	JMC BEST SPENCER MIXED —Comprises the best varieties in all beautiful shades and colors and much superior to that offered indiscriminately as coming from growers. Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 85c.	
770	CHOICE MIXED SWEET PEAS —A good mixture made up of Grandiflora types mostly of the older sorts, which will give general satisfaction. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 90c.	
771	CUPID SWEET PEAS —A dwarf growing class which is excellent for growing in pots or for edgings for flower borders or beds; The blooms while not quite so large as the tall growing sorts are very good form and comprise white and pink colors. Pkt., 5c; oz., 25c; $\frac{1}{4}$ lb., 75c.	

Sweet William (*Dianthus Barbatus*)

A well known old-fashioned perennial which has long been used for beds and borders. It is one of the most desirable plants in the garden, is easily grown, very hardy and free flowering, continuing in bloom for several weeks. The flowers are borne in heads or clusters, sweet scented, in brilliant colors ranging from pure white through pink, crimson, etc., to deep purple. Most of them have two colors in the same flower. They are borne on stiff stems in graceful profusion and the clusters are often 3 to 4 inches across. Useful for cutting.



SWEET WILLIAM (Single).

The seed can be sown in the spring outdoors where they are to bloom or in the fall, thinning out or transplanting at least 1 ft. apart each way. Or they can be sown in the house and transplanted. They form large clumps which can be divided. H. P. Height 1 1/2 ft.

772	SINGLE MIXED —Comprises a wide range of colors varying from white, rose, pink, lilac, crimson, maroon to deep purple. Pkt.....	10c
773	DOUBLE MIXED —A splendid strain of this beautiful perennial comprising a great variety of excellent shades. Oz., \$1.00. Pkt.....	10c

SWEET PEAS (Hardy)—See *Lathyrus*, Page 55.

THUNBERGIA—See Page 65.

Torenia

774	FOURNERI —A tender annual which has trumpet-like flowers. Plants grow about 10 inches high; are splendidly adapted for hanging baskets, garden vases, window and pot culture. Flowers are pendulous, bright blue with indigo spots. It is most effective, free flowering and of trailing habit. Seed should be started early in the house and transplanted when the plants are large enough to handle or can be sown outdoors in very fine, pulverized soil. Pkt.....	10c
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Vinca (Periwinkle)

Free flowering bedding plants which grow in bushy form and produce round, flat, disk-like flowers, about 2 inches across. They commence to bloom moderately early in the season and the plants are literally covered throughout the summer and fall. Foliage is very distinct, being dark glossy green. Leaves oblong, smooth and in contrast with the brilliant pink and white flowers extremely effective. Tender annual.

Height 18 inches. Blooming the first season.

775	Pure White. Pkt.....	5c
776	Rosea—Rose with crimson eye. Pkt.....	5c
777	Mixed—White and pink. Pkt.....	5c

"Wild Garden" Flower Seed

This comprises a mixture of annuals, biennials and perennials and consists of sorts growing at moderate heights. No vines, trailers, or very tall growing plants being used in it.

778	Large Pkt., 10c. Oz., 25c $\frac{1}{4}$ Lb. 75c. 1 Lb.....	\$2.50
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VERBENA

This has long been a favorite bedding plant and still retains its popularity on account of its very free flowering habit and brilliant display. Flowers are borne in large clusters and comprise many shades from purest white to deep rich purple. They commence blooming early and continue in uninterrupted succession until frost. Very useful for beds and the dwarf varieties for edges. It is trailing in habit and is a desirable plant for garden vases, window boxes, rockeries, etc.

Seed can be started in the house and transplanted to the garden when the weather is warm or sown in the open ground, thinned and transplanted. Verbenas from seed are much more thrifty and less liable to rust than from cuttings. H. H. P. 1 ft. high.

MAMMOTH VERBENA

A magnificent strain bearing large clusters of showy flowers.

779 White—Fine for florists' use or where white summer flowers are desired. Pkt.....	10c
780 Defiance—Brilliant scarlet, very effective as a bedding sort. Pkt.....	10c
781 Pink—A magnificent shade of lively pink. Heads large. Pkt.....	10c
782 Light Blue—A pleasing shade. Pkt.....	10c
783 Purple—A rich color. Pkt.....	10c
784 MAMMOTH MIXED—Comprising a wonderful range of charming colors in every conceivable shade. Oz., \$1.50. Pkt.....	10c
785 FINEST MIXED VERBENAS—A splendid mixture of old-fashioned sorts which comprise a wide range of colors many of the flowers being striped. Oz., \$1.00. Pkt.....	5c
786 LEMON SCENTED (<i>Aloysia Citrodora</i>)—A tender perennial, producing stiff, shrubby bushes which have bright green, very long serrated leaves. The flowers are insignificant but the leaves have a delicious lemon like fragrance, much desired for use in boxes or for use in linens. It is well known, popular and easy to grow. Seed should be started very early indoors, transplanted to small pots and set in the garden when the ground is thoroughly warm. Pkt.....	10c

Violet

Modest little plants bearing white and blue flowers on long, slender stems. They are well known and extremely popular on account of their delicate and delicious fragrance. They grow well in shady, damp and moist situations and are used in rockeries.

Seed sown in the fall bloom early the next spring or if sown in the spring will bloom the following year. Hardy perennial.

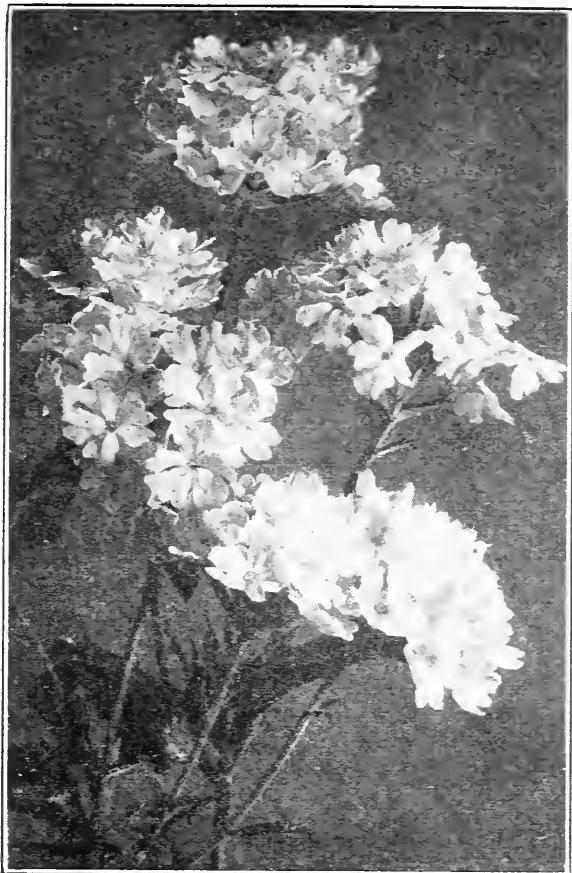
787 Blue—Pkt.....	10c
788 White—Pkt.....	10c
789 Mixed—Pkt.....	10c

Wallflower

Well-known and deliciously fragrant half-hardy biennials; the large spikes of bloom are of most beautiful colors. Height 1½ feet.

790 Large-Flowering Single Mixed—Pkt.....	5c
791 Large-Flowering Double Mixed—Pkt.....	10c

Woolflower—See Celosia.



MAMMOTH VERBENA

ZINNIA

(Youth and Old Age.)

Zinnias begin to bloom early in the summer and continue profusely until frost, requiring no attention and succeeding almost anywhere. Seed can be sown in open border and thinned or transplanted or if desired can be started earlier in the house and transplanted later. H. H. A.

TALL FLOWERING SORTS.

Height 2 ft.

792 Tall Double White—Oz., \$1.00. Pkt.....	5c
793 Tall Double Yellow—Oz., \$1.00. Pkt.....	5c
794 Tall Double Crimson—Oz., \$1.00. Pkt.....	5c
795 Tall Double Purple—Oz., \$1.00. Pkt.....	5c
796 TALL DOUBLE SCARLET. Oz. \$1.00. Pkt.....	5c
797 TALL DOUBLE MIXED—Comprises a wonderful range of the best colors. Very double flowers. Oz., 60c. Pkt.....	5c
798 Giant Double Mixed—Pkt.....	10c

DOUBLE GIANT PICOTEE

799 A new and distinct class producing the following colors, all tipped with various shades of dark, giving the flowers a very attractive and pleasing appearance, resembling Picotee Carnations. Orange, Flesh, Lemon, Pink and Cerise. Pkt..... 15c

DWARF VARIETIES.

Height about 1 ft.

800 Dwarf Double White—Oz., 75c. Pkt.....	5c
801 Dwarf Double Pink—Oz., 75c. Pkt.....	5c
802 Dwarf Double Orange—Oz., \$1.00. Pkt.....	10c
803 Fire Ball—Brilliant crimson. Oz., 75c. Pkt.....	5c
805 Dwarf Purple Carmine—Oz., 75c. Pkt.....	5c
806 Dwarf Double Mixed—Comprise a wonderful range of colors, very attractive. Oz., 50c. Pkt.....	5c
807 DWARF CURLLED AND CRESTED—Twisted and curled petals which make very effective flowers. Oz., \$1.00. Pkt.....	10c

XERANTHEMUM

(Everlasting or Immortelle)

808 Double Mixed—Bright and pretty "Everlasting" with silvery foliage and silky flowers in pink, white and purple. H. H. A. Pkt.....	5c
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CURLED AND CRESTED ZINNIA

VINES, CLIMBERS AND TRAILERS

ADLUMIA—See page 48.

AMPELOPSIS

(Japanese or Boston Ivy) Hardy Perennial.

- 809 **VEITCHII**—The leaves are olive green turning to scarlet in the Autumn. Perfectly hardy; grows 30 to 60 feet. It clings firmly and permanently to walls, trees, etc. Very desirable. Pkt. 10c
- 810 **BALLOON VINE** (*Cardiospermum*)—A very attractive trailer, being remarkable for its inflated seed pods which are very light green color and this, with the foliage, makes it extremely ornamental, unique and attractive. It is of rapid growth and graceful; has small insignificant white flowers and attains a height of 6 to 8 ft. Sometimes called "Love in a Puff." T. A. Sow Seed after ground has become warm where they are to grow, thinning out if necessary. Pkt. 5c

BALSAM—PEAR AND APPLE (*Momordica*)

Tender annual climbers bearing ornamental fruits of various colors. They grow 10 to 12 ft. high. Have light green foliage, rather large leaves and are very graceful.

Seed should be planted out of doors when the weather is warm.

- 811 **BALSAM APPLE**—Like Balsam Pear with foliage smaller and smaller fruits, very nearly round. Green, striped when young, afterwards becoming scarlet. Oz., 40c. Pkt. 5c
- 812 **BALSAM PEAR**—Fruits oblong, pointed and warted, first green, afterwards changing to bright red. When fully ripe, burst open exposing the seed. Largely used for putting in alcohol or whiskey and used as a poultice or for cuts, bruises and wounds. Oz., 40c. Pkt. 5c

BRYONOPOSIS

- 813 **BRYONOPOSIS**—One of the most attractive of the tender annuals producing small gourd-like fruits about the size of a cherry. The vine is of very quick growth, attaining a height of 10 to 12 ft. and has bright colored foliage which in contrast with the green fruits (which afterwards change to red striped with white) make it extremely attractive. Pkt.

CANARY BIRD FLOWER

- 814 **CANARY BIRD FLOWER**—A beautiful climber with small beautiful, rich yellow flowers and dark foliage, the leaves resembling palm leaves. It is a quick grower attaining a height of 12 ft. Blooms profusely from July until frost. Pkt.

Cardinal Climber

(*Ipomoea Quamoclit Hybrida*)

- 815 The most brilliant, beautiful and distinct annual climber introduced for many years. Rapid grower with branching habit; flowers all summer; cardinal-red clusters, 15 to 25 feet. T. A. Pkt. 10c



CLEMATIS

Well known and popular Perennials which are valuable for trellises, low porches and arbors. They are of various sizes and colors of bloom varying from very small white star-like flowers borne in immense clusters to the large white purple and red sorts.

Seed should be sown early and transplanted or can be sown in the fall. H. P.

- 816 **FLAMMULA** (Virgin's Bower)—Small white flowers borne in clusters, very sweet scented and of rapid growth. Height 10 to 15 ft. Pkt. 5c
- 817 **JACKMAN'S HYBRIDS**—Comprises several strains of medium and large size flowers. Pkt. 10c

Cobaea Scandens

An attractive, rapid growing Climber with large bell-shaped flowers which at first are green but gradually change to a deep violet blue. The foliage is handsome, dark green; a great profusion of tendrils is produced and it is valuable for arches, trellises, arbors and attains a height of as much as 30 ft. in a season. T. P.

Seed should be started indoors in shallow boxes using light loamy soil and placing the seed edgewise. Set the young plants in the open when the ground is warm.

- 818 **Blue**—Pkt. 5c

Cypress Vine

A beautiful rapid growing Climber with delicately cut vivid green foliage and star-like flowers which make a most effective contrast with the leaves.

Seed is usually sown outdoors where the plants are to remain, covering 1½ inches deep. T. A. About 15 ft. high.

- 819 **Scarlet**—A very neat, rich shade. Oz., 60. Pkt. 5c
- 820 **White**—Clear white. Oz., 60. Pkt. 5c
- 821 **MIXED**—Mixed scarlet and white. Oz., 50c. Pkt. 5c

Gourds

Well known ornamental Climbers making a rapid growth. The vines are vigorous, have moderately large, round leaves and fruits of many sizes, colors and shapes. Seed should be planted outdoors when the weather is warm and do best in rich soil and sunny situations. T. A. Height 15 to 20 ft.

- 822 **BOTTLE**—Curious bottle shaped fruits, useful for household purposes. Pkt. 5c
- 823 **CALABASH**—The pipe gourd which is so popular. Pkt. 5c
- 824 **DIPPER**—Round fruits with elongated handle. Pkt. 5c
- 825 **DISH CLOTH**—Long, green, corrugated fruits, the inside of which is a fibrous mass which when the seeds are removed makes an excellent household sponge. Pkt. 5c
- 826 **HERCULES' CLUB**—The longest of all sorts, sometimes 5 ft. Pkt. 5c
- 827 **JAPANESE NEST EGG**—Small white fruits which do not crack with heat or cold. Pkt. 5c
- 828 **ORANGE**—Well known mock orange. Fruits nearly round, orange color. Pkt. 5c
- 829 **MIXED**—Mixture of small sorts including some of the above and many others curiously shaped and ornamental sorts. Pkt. 5c
- 829½ **SUGAR TROUGH**—Pkt. 5c



COBAEA SCANDENS

Japanese Hop (Humulus)

Hardy Annual Climber.

- 830 **VARIEGATED**—A charming climber, attaining a growth of 20 to 25 feet in a few weeks. The leaves are beautifully marked and variegated with white, yellowish green and dark green. Pkt... 10c

Hyacinth Bean (Dolichos Lablab)

A beautiful tender annual climber bearing large clusters of purple and white flowers which are afterwards followed by ornamental purple seed pods. Height 15 to 20 ft.

- 831 **MIXED COLORS**—Pkt 5c

Ice Plant—(Mesembryanthemum)

- 832 Valuable for hanging baskets, rockwork, vases and window boxes. It is curious growing, the leaves and stems appearing as though covered with ice crystals. A tender trailing annual growing about 6 inches high, and the vines will extend 2 ft. long. Pkt..... 5c

Kenilworth Ivy

- 833 Valuable for hanging baskets, vases, pots and window boxes. It produces a mass of small, smooth bright green leaves which are extremely attractive. Pkt..... 5c

Maurandia

A graceful climber with glossy ivy-shaped leaves and bearing an abundance of showy, irregular trumpet-shape flowers, 1½ inches long, which are usually of purplish blue, rose or white colors with lighter throats. It is very attractive and desirable for small trellises, garden vases, hanging baskets and window-boxes where trailing can be allowed.

Seed should be started in the house or hot bed and transplanted. Grows 6 to 10 ft. long.

- 834 **BARCLAYANA**—Attractive purplish blue flowers with lighter throats. Pkt..... 10c

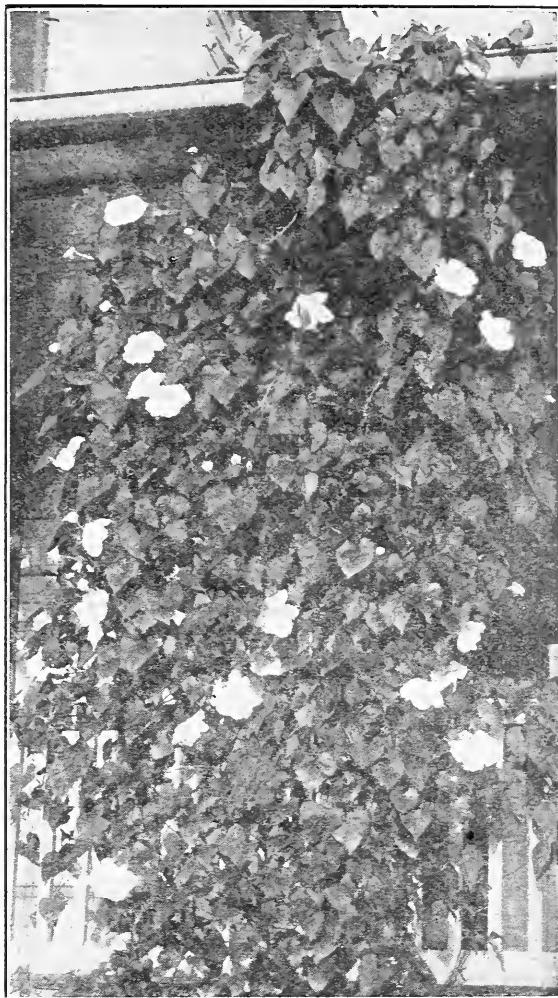
Moon Flowers (Evening Glory)

The well known and popular tender perennial so largely used. It grows to an immense height, sometimes 30 to 40 ft. in a single season and is literally covered with large white flowers 3½ to 4 inches across which open in the evening and are very sweet scented. Useful for covering old fences, dead trees, stables, and unsightly places, being extremely rapid growing with a profusion of large leaves.

Seed should be started indoors and transplanted to the open after the weather is warm. As the outer seed shell is particularly hard, a small hole should be filed in it or part shaved off with a knife before planting. Soaking in very warm water 24 hours is beneficial.

- 835 **MEXICANA**—The well known Moon Flower. (White seeded). Pkt..... 10c

- 836 **HYBRIDA (Black Seeded)**—An early blooming sort. Flowers not quite so large, blooming 3 to 4 weeks sooner. Very free flowering. Pkt..... 10c



MOONFLOWER

Morning Glories

The well known and popular hardy annual climbers which produce large trumpet-like flowers of many brilliant colors. Seed is sown where they are to bloom, thinning as may be desired. Height 10 to 15 ft.

- 837 **JAPANESE**—Flowers of largest size, often 3 inches across, in magnificent colors and brilliantly marked. Oz., 25c. Pkt..... 5c

- 838 **MIXED**—A splendid mixture of various shades. Oz., 15c. Pkt..... 5c

NASTURTIUM—Tall—See Page 56.

Passion Flower

A hardy perennial climber bearing large, light, sky blue flowers 2½ inches across which have a curiously shaped stamen head in the shape of a cross—hence the name. Flowers very attractive and sweet scented. Foliage light green, graceful. Height 15 to 20 ft. Valuable where hardy climbers are desired.

- S39 **COERULEA**—Light sky blue. Pkt..... 5c

- S40 **SCARLET RUNNER**. Pkt..... 5c

Smilax

- 841 **SMILAX**—A popular greenhouse climber having graceful foliage largely used in contrast and as a back ground for cut flowers. Seed is sown in hot bed or greenhouse and transplanted to beds. Very rarely used outdoors. T. P. Height about 10 ft. Pkt..... 10c

SWEET PEAS—See Page 56.

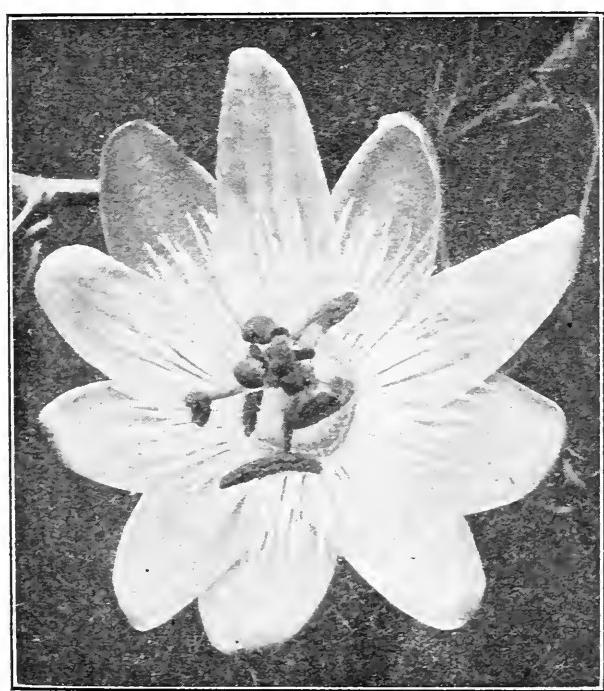
Thunbergia (Black Eyed Susan)

An attractive climber growing 4 to 6 ft. long which is largely used for garden vases, window-boxes, hanging baskets, etc. Flowers are about 1 inch across being of creamy white, buff and orange colors with very dark brown throats; very free blooming. A very attractive plant both in foliage and in abundance of flowers.

- 842 **MIXED**—Colors, creamy white, buff and orange. Pkt.. 10c

Wild Cucumber (Echinocystis Lobata)

- 843 **WILD CUCUMBER (Echinocystis Lobata)**—A useful and rapid climber of vigorous growth which bears an abundance of foliage and is thickly covered with sprays of small, white fragrant flowers followed by numerous prickly seed pods; valuable for covering old buildings, trellises, porches or anywhere that quick growth is desired. Can be sown very early in the spring or late in fall. H. A. Pkt..... 5c



PASSION FLOWER

HARDY PERENNIAL PLANTS.

The old-time Perennials are coming to be more widely known and planted with each year. No hardy border is quite complete without it being interplanted with some of these choice specimens, and the whole border filled with Perennials is a joy every day during the flowering season.

A very effective way of planting, especially when the space is long, is to use a large quantity of plants and a few varieties whose blooming season follows each other in quick succession. It is a good idea to plant the whole border in small groups so that the entire space is attractive with flowers of one kind, and perhaps one or two colors. If this plan is followed, the border cannot present a whole mass of bloom, but there are pleasant changes almost every week during the season.

The preparation of a Perennial bed should be very thorough, especially as the soil cannot be well tended or much enriched afterward. If the subsoil does not permit sufficient under-drainage to prevent water staying on the surface then under-drainage to the depth of at least two and a half feet will be necessary.

A first-class Perennial bed, suited to sustain a large variety of plants in vigorous growth, should have the ground made loose to a depth of at least two feet. A satisfactory method is to throw off the top soil, then dig over the subsoil and mix with it a liberal amount of sheep manure. If the soil is a stiff clay, an application of about two inches of screened coal ashes or sand worked into the soil will keep it loose.

The top, if possible, should be good rich loam (see page 88), well mixed with sheep manure and put in a fine, pulverized condition. Keep the surface soil rich at all times, since many of the plants are shallow rooted and need a very mellow soil.

AQUILEGIA (Columbine)

This is one of the best Perennials for borders or edges of shrubbery. They do best in partial shade.

CANADENSIS—Red and Yellow. HELENA—Blue and White
25c each. \$2.40 dozen.

ASTER, HARDY (Michaelmas Daisy)

Hardy Aster are easy of cultivation in ordinary soils and exposures and are among the best plants for the hardy border and for cut flowers. Flowers appear in the autumn and are brilliant blue, purple or white. Each.....25c Per Dozen.....\$2.40

CAMPANULA (Bellflowers)—These are well-known biennials and perennials which are easily grown in any garden and give fine borders or beds.

CHRYSANTHEMUMS (Hardy)

These are universally popular for outdoor bedding. They produce a lavish profusion of blooms, giving color, life and beauty to the garden just at a time when other plants have been destroyed by frost or looking their worst. They are quite hardy if planted in a well-drained position, and, with a slight covering of leaves or litter during the winter, will take care of themselves after once planted. Each, 30c; Per Dozen.....\$3.00

COREOPSIS LANCEOLATA—Bright golden yellow, blooming in profusion all summer. Each.....20c Per Dozen.....\$2.00

DELPHINIUM (Larkspur)

These are deservedly one of the most popular subjects in the hardy border, bold, attractive, and highly prepossessing plants of easiest culture; perfectly hardy. They will establish themselves in almost any garden soil, but respond quickly to liberal treatment.

DELPHINIUM BELLADONNA—The freest and most continuous blooming of all. Each25c Per Dozen.....\$2.50

DELPHINIUM FORMOSUM—Dark blue, white center, spikes three to four feet tall, vigorous; free blooming. Each 25c Per Dozen \$2.50

DIGITALIS (Foxglove)

The strong flowerstalks—frequently 4 to 6 feet high—rising from rich and luxuriant masses of leaves, always give an appearance of strength to the hardy border, and during their period of flowering dominate the whole garden. Assorted, Each....20c Per Dozen....\$2.00

FORGET-ME-NOT

MYOSOTIS PALUSTRIS SEMPERFLORENS—A variety that is hardly ever out of flower; useful in a shady spot in the border and for forcing cut flowers in the winter. Each.....35c Per Dozen.....\$3.50

GAILLARDIA (Blanket Flower)

GRANDIFLORA.—One of the showiest hardy plants, growing about 2 feet high and succeeding in any soil in a sunny position. The centre is dark-red brown, while the petals are marked with rings of brilliant crimson, orange and vermillion. Each.....20c Per Dozen.....\$2.00

GYPSOPHILA (Baby's Breath)

Will thrive in any soil in a sunny position, and on account of their gracefully arranged large panicles of minute flowers should be in every garden.

PANICULATA—A beautiful old-fashioned plant, possessing a grace not found in any other perennial. Each.....25c Per Dozen.....\$2.50

STIMUPLANT
Makes a
WONDER GARDEN

HEMEROCALLIS

5433 FLAVA (Lemon Lily)—Deep lemon-yellow flowers, blooming during June and July. 2 to 3 feet high. Each.....20c Per Dozen.....\$2.25

5444 FLORHAM—Rich golden yellow flowers during summer. 3 to 4 feet tall. Each.....20c Dozen.....\$2.25

HIBISCUS (Mallow)

MALLOW MARVELS—A robust type of upright habit, producing an abundance of flowers of enormous size in all the richest shades of crimson, pink and white; mixed colors. Each...30c Per Dozen...\$3.00

HOLLYHOCKS

Growing 5 to 6 feet tall, these plants produce a pleasing effect planted either in rows on the lawn or among shrubbery. They require a deep rich soil, and a sunny situation, and will repay a little extra attention given them.

Double flowering in colors. Each.....20c Per Dozen.....\$2.00

JAPANESE IRIS (Iris Kaempferi)

IRIS KAEMPFERI are truly glorious flowers, of refined form and beautiful coloring. The petals are thick, yet poised as lightly as butterflies they begin blooming in June and flower profusely during June and July. Japanese Iris are perfectly hardy and, if planted in good soil, will grow fully four feet tall. They grow particularly well if planted in moist, deep and rich soil.

Mixed varieties including all good colors, each, 25c. Per Dozen, \$2.50

GARDEN IRIS—The Garden Iris is one of the desirable May flowering plants. The flowers are large and of varied colors. Do not plant too deep.

Dark Blue, Light Blue, Buff, White, Yellow, Variegated.
Each.....25c Per Dozen.....\$2.25

PEONIES

The Peony of all the hardy outdoor plants is perhaps the oldest and best known inhabitant of the flower garden, and in the improved double forms offered by us the gorgeous display of blooms in the month of June is unequalled, the flowers being perfectly double, many being very fragrant and all of massive size.

We can supply large clumps of many varieties of Peonies from 50c to \$1.50 each.

POPPY (Oriental)

Perennial poppies are of the easiest culture; almost any kind of soil suits them, but they do best in deep, rich loam; give them water occasionally during dry spells in the early part of the season.
Each.....30c Per Dozen.....\$3.00

HARDY PHLOX

PHLOX DECUSSATA—This is one of the most useful flowers for summer decoration, the colors varying from pure white to deep crimson. They are not at all particular as to soil, and are exceedingly hardy. To obtain good results it is wise to manure the soil well and give them a fairly open situation, and an occasional soaking of water during very dry weather. Once planted they require no further attention for several years, but it is advisable to renew them about every fifth year. Price, Assorted Varieties, Each....25c Per dozen.....\$2.50

RUDBECKIA (Cone-flower)

Grow and thrive anywhere, giving a wealth of bloom, which is well suited for cutting.

"GOLDEN GLOW"—Produces masses of double golden yellow Cactus Dahlia-like flowers from July to September. Each....25c Dozen...\$2.25

HARDY PERENNIAL PLANTS—Continued

SEDUM (Stone Crop)

SPECTABILIS—Erect growing; height 18 inches with broad light-green foliage and immense heads of handsome, showy, rose-colored flowers.
Each.....20c Per Dozen.....\$2.00

SWEET WILLIAM

DIANTHUS BARBATUS—These old-fashioned favorites are prized border plants. There is a great variety of rich colors, and the flowers are very fragrant. Each, 25c Per Dozen.....\$2.50

SHASTA DAISY

Large, snowy-white flowers, in bloom continuously throughout the Summer and Fall.

Each.....25c Per Dozen.....\$2.50

PINKS—(Hardy Garden)

DIANTHUS PLUMARIUS.—(Hardy Garden or Pheasant Eye Pinks.) These "Clove Pinks," so much used for edgings of old-fashioned gardens, bloom most profusely during May and June. They grow about a foot high, and bear double flowers resembling small carnations. We have white, pink and red. Each.....30c Per Dozen.....\$3.00

SUMMER FLOWERING BULBS

These include many of our most attractive plants both for foliage and flowers. As a rule they should be planted out of doors after the weather has become settled and warm. After the first frost and the leaves have turned droopy or yellow, take up and put in a dry cellar or some other place where they will not freeze, storing in paper bags or soil preferably, and then replanting the following year.

AMARYLLIS

If to be sent by mail, add 3c each extra.

Large bulbs producing brilliant colored lily-like flowers. Has long, slender, succulent leaves; usually grown in pots; height about 15 inches.

Formosissima—Large, velvety, crimson flowers. Free flowering. Each, 15c; dozen, \$1.50.

CALADIUMS (Elephant's Ear)

A vigorous growing plant which has tremendously large, pendulous leaves borne on long stiff stems. In rich soil, and with an abundance of moisture, assumes very large growth and is most effective either singly on lawns or planted in centers of beds or as backgrounds for other blooming plants.

	each	dozen
5 to 7 in. circumference.....	15c	\$1.25
7 to 9 "	20c	2.00
9 to 11 "	25c	2.75
11 to 12 "	30c	3.25

CANNAS

The wonderful improvement to which this popular bedding plant has been developed makes it today one of the best of all summer flowering plants both for flowers and foliage. Its ornamental leaves varying from light pea green to darkest brilliant maroons and bronzes can be used most effectively both in borders or beds. The flower spikes have been developed to enormous size and individual flowers sometimes measure 2 inches across. They are of the most brilliant colors, including all shades from creamy white through pure lemon yellow, orange, salmon, pink, scarlet to deep red velvety maroons. Many of the flowers are tinged with gold, some spotted and others striped until there is a gorgeous display which continues to bloom from early summer until cut by frost.

For best results beds should be deeply spaded and a liberal amount of well rotted manure dug in. A mass of the different colors can be planted together or single plants are effective—the arrangement being largely dictated by one's own taste.

Prices of named varieties—Dormant Roots—each, 15c; dozen, \$1.50; by mail, \$1.65 dozen.

GREEN FOLIAGE

ALPHONSE BOUVIER—Brilliant crimson. 6 feet.

CRIMSON BEDDER. Dazzling crimson scarlet. 3½ feet.

AUSTRIA—Pure canary-yellow; fine large open flowers, with few reddish dots in the center of the two inside petals. 4 feet.

EUREKA—The genuine, practical White Canna is found at last. With the advent of Eureka, we are granted good, full-trusses; broad petals; uniform, free and continuous bloom, and a clean, waxy, lily-white color. Plant growth sturdy, with nice foliage. 4½ feet.

FIREBIRD—The best scarlet, green-leaved variety. The flowers are borne in immense trusses on strong stalks well above the leaves. They are of splendid form, round and shapely. The petals measure and sometimes exceed two and one-half inches across, a clear glistening scarlet without any streaks, spots or blotches; four feet.

GOLDEN GATE—Four feet. Green foliage. Large trusses indescribably soft and rich in coloring; the young flowers pure gold, the older ones rich cream, all of them variously tinted orange-crimson and apricot, with a wonderful sheen in the sunlight; throat deep carmine-red.

LOUISIANA—Very large, beautiful, vivid, scarlet, orchid-like flowers, often measuring five to six inches across. Foliage a glossy green, edged with a narrow purple band; six feet.

METEOR—The best deep red large-flowered Canna, with massive erect trusses of deep blood-red flowers; five feet.

MADAM CROZY—Vermillion with golden borders. Green foliage. 3½ feet.

ROSEA GIGANTEA—Giant flowers of soft rose to carmine pink. 3½ feet.

SHENANDOAH—Showy large rose pink. Green foliage. Height 4 to 5 feet.

VENUS—Rose pink, creamy-yellow border. 4 feet.

YELLOW HUMBERT—Has the same habit of growth as the King Humbert. Has green foliage and produces yellow flowers, dotted with red; four to five feet.

BRONZE LEAVED

KING HUMBERT—In this grand Canna we have a combination of the highest type of flowers with the finest bronze foliage. Its flowers measure 6 inches in diameter. Produced in gigantic trusses, a brilliant orange-scarlet with bright red markings; foliage broad and massive, of a rich coppery-bronze. 5 feet.

WYOMING—Massive orange flowers on purplish-bronze foliage, making a strong contrast; 6 feet.

STIMUPLANT
Makes a
WONDER GARDEN

Climbing and Trailing Plants

STIMUPLANT
Makes a
WONDER GARDEN

AMPELOPSIS

VEITCHII—Japan Creeper. Boston Ivy. A rapid growing climber which clings to walls, fences, trees, stumps, etc., with great tenacity. The leaves overlap one another, forming a dense sheet of green in summer, which changes to crimson scarlet in autumn. Strong 2-year old, each 50c. Doz. \$5.00.

ARISTOLOCHIA

SIPHO. (Dutchman's Pipe)—A most beautiful climber of rapid growth, with magnificent light green foliage. Has curious pipe-shaped yellowish brown flowers which are very unique and ornamental. Strong plants, each 50c.

GIGNONIA TRUMPET VINE—A hardy climber, of loose trailing habit and bearing long trumpet-shaped attractive flowers of pinkish salmon color. Each, 50c.

CELASTRUS

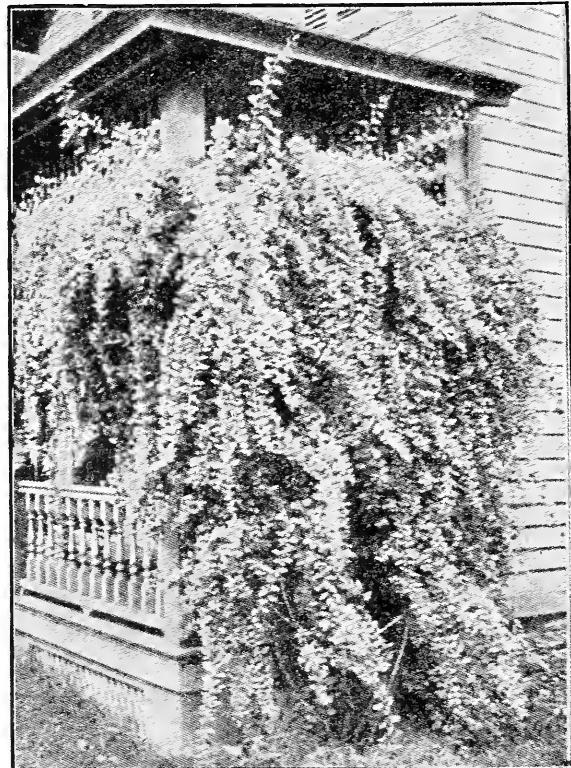
SCANDENS (Climbing Bitter Sweet)—A native climbing or twining plant, with fine, large leaves, yellow flowers and clusters of orange-capsuled fruit in the autumn. It grows 10 to 12 feet in a season. Each, 50c.

CLEMATIS

Among the most popular of hardy perennials and not exceeded in beauty and effectiveness by any other class of climbers. They are excellent as a screen for fences, pillars, or trailing on walls or arbors, or on verandas. Very effective in masses of rock work and some are valuable for cultivation in pots. Clematis does best in deep, rich sandy, loamy soil, well mulched with manure, and the finest results are obtained in partial shade, where there is a liberal supply of water given at the roots.

NAMED SORTS—These include Jacmanni (large violet purple), Henryii (large creamy white), Madam Edw. Andre (large bright velvety red). Strong plants each 85c.

COCCINEA—Bell-shaped flowers of bright coral red color. While it is a small variety, is very effective and blooms from June to fall. Each 75c.



CLEMATIS PANICULATA

WISTERIA

CHINESE PURPLE (*Sinensis*)—An elegant and rapid growing climber, attaining a height of 20 feet in a season. Has hundreds of long, pendulous clusters of sweet scented pale blue flowers in May and June and in autumn. Strong 2-year plants each, 75c.

CHINESE WHITE—Similar to above. Pure white flowers; beautiful. Each 75c.

ORNAMENTAL GRASSES

PRICE ALL VARIETIES, 25c.

ERIANTHUS RAVENNAE (*Plume Grass*)—Grows six to eight feet high and produces handsome plumes in fall.

EULALIA GRACILLIMA—(*Japan Rush*)—The most beautiful of all the Eulalias, with narrow, graceful foliage entirely green, except that the mid-rib is of a silver sheen. Perfectly hardy.

EULALIA JAPONICA VARIEGATA—Leaves striped white and green longitudinally.

EULALIA ZEBRINA (*Zebra Grass*)—A peculiar variegated grass, growing six feet high. The variegation is unlike that of any other plant, being across the leaf in regular bands, dark green and light yellow alternating.

The dried blooms of all the Eulalia make beautiful winter ornaments.



WISTERIA

HARDY ROSES—Hybrid Perpetual and Everblooming

Roses should be planted in the spring just as soon as the ground can be worked, and carefully handled, as they are plants that need attention when planted.

The plants offered herein are field grown and dormant, and can be planted as soon as frost is out of the ground. They are large and bulky, and not to be compared with small plants out of pots. From their size, we can send them **only by express or freight**. The purchaser pays the transportation charges. Having no soil on the roots and being dormant, they can be sent at low cost by express. Plants are not included in parcel post rates.

LOCATION AND ARRANGEMENT OF ROSE PLANTING. Rose plantings can be successfully made where the location is not overshadowed by large trees, and where not shaded by buildings or fences more than half the day. Soil should be well drained and fertile. If not naturally rich, it must be made so by adding more fertile soil, and a liberal amount of manure.

ROSE BEDS. We advise planting several bushes of a variety or color, in a square by themselves instead of scattering them at random through the bed. To secure large, well developed, long stemmed flowers, bushes should be kept well pruned; do not be afraid to cut long stems with the flowers. Continuous cutting back or pruning of the bedding varieties forces strong vigorous shoots from near the ground from which you get the finest long stem flowers. Cut away old and unhealthy branches.

CLIMBING OR TRELLIS ROSES. These may be planted in a great number of locations to good effect. Around verandas or porches they are especially desirable. They do not become sufficiently dense to exclude air, light, or harbor insects. Other choice locations are for training over summer houses, pergolas, along fences and the rose walk. Climbing roses should be planted from three to eight feet apart depending upon how dense a covering is desired. Little, if any, pruning should be done. Branches that grow in long shoots, many times 15 to 20 feet or more, should be carefully trained and tied to trellis or support.

Purchaser's selection from list below:

Two-year-old field-grown plants each 75c; doz. \$8.00.



EVERBLOOMING TEA ROSES

Grus Au Teplitz. Brilliant scarlet; free bloomer.

J. B. Clark. Deep rich scarlet.

Columbia. Large deep pink.

Jonkheer J. L. Mock. Imperial pink, highly perfumed.

Hoosier Beauty. Glowing crimson.

Augusta Victoria. Creamy white.

Killarney Brilliant. Large brilliant pink.

Antoine Rivoire. Cream white.

Killarney White. Pure white, long bud.

Lady Hillingdon. Apricot yellow, shading to orange.

Etoile de Lyon. Golden yellow.

Madam Carolina Testour. Silvery salmon pink.

Ophelia. Salmon flesh, shaded rose.

HARDY HYBRID PERPETUAL ROSES

American Beauty. Deep rosy carmine.

Persian Yellow. Deep yellow, hardy.

General Jacqueminot. Deep velvety crimson.

Karl Druschki. The best snow white.

Paul Neyron. Deep rose, large flowers.

Marshal P. Wilder. Deep red, very fragrant.

Eugene Fuist. Crimson, shaded maroon.

Magna Charta. Deep pink, sweet scented.

Mrs. John Laing. Soft pink, very fragrant.

Jules Margottin. Glossy pink.

HARDY CLIMBING ROSES

American Pillar. Rich rosy pink.

Baltimore Belle. Blush white.

Crimson Rambler. Bright crimson.

Dorothy Perkins. Pure salmon pink.

Flower of Fairfield. Bright crimson everblooming.

Silver Moon. Pure white.

Excelsia. Red Dorothy Perkins. Very free bloomer.

DAHLIAS

READY ABOUT APRIL 1st.

One of the most satisfactory of the summer flowering roots, producing an abundance of brilliant colored flowers from July to frost. The different varieties comprise all colors from purest white to deepest maroon. Many of them in two or more colors with edged petals; some double with quilled petals, others broad, flat petals, some twisted and curled, and comprise many fantastic shapes. There are several classes. Our stock embraces the best varieties and prices are very reasonable.

Culture—Plant from April to July. Do not allow over three stocks to grow. Stake the plants. Keeping the suckers pulled off will produce the finest blooms. After frost dig and store in a dry place where they will not freeze.

Our stock is **CHOICE FIELD GROWN Roots, strong division.**

PRICE ALL VARIETIES (except when noted) in customer's assortment, separate varieties as desired. Each, 20c; \$2.25 per doz.; \$15.00 per 100. **BY MAIL**, \$2.40 per doz.

CACTUC DAHLIAS.

FLORADORA. Deep dark, rich wine-crimson, splendid shaped flowers on long, upright, wiry stems.

PRINCE OF YELLOWS. A rich canary-yellow, broad petals, tips fringed. 25c each; \$2.75 doz.

COUNTESS OF LONSDALE. A peculiar but pleasing blending of salmon-pink and amber, a color difficult to describe.

STANDARD BEARER. Rich fiery red, best scarlet for cutting.

PEARL DE LYON. Pure white.

SHOW AND FANCY DAHLIAS.

CALEB POWERS. Delicate soft shell-pink of splendid form; remarkably free-flowering, long stems; fine for cutting.

BRONZE BEAUTY. Orange red.

RED HUSSAR. Richest, dazzling cardinal red. Vigorous grower and free bloomer on long stems. 30c each.

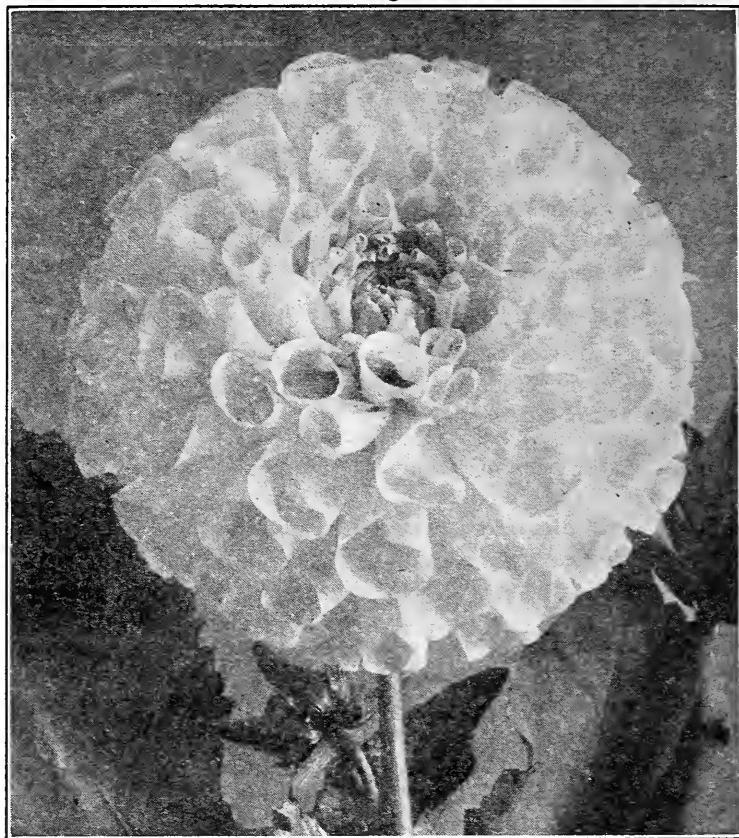
QUEEN OF THE YELLOW. Fine clear yellow, early and prolific bloomer.

EMILY. A beatiful flower, very large, perfect ball shape. The colors are white and light violet, the violet washed over the edge of each petal as a deep border. The effect at a little distance is solid violet.

WHITE SWAN. Pure white, one of the best for cutting.

DECORATIVE DAHLIAS.

GRAND DUKE ALEXIS. One of the most delicately beautiful of all Dahlias. Very large, perfect form, with long, thick quilled petals overlapping at the ends. White, slightly tinged and suffused delicate lavender. 25c each; \$2.75 doz.



SHOW OR FANCY DAHLIA

DECORATIVE DAHLIAS—Continued.

SOUV DE GUSTAV DOAZAN. The petals are of great width and overlap each other regularly. The color is a rich fiery red that seems almost burnished. Very fine in every way. 25c each; \$2.75 doz.

JACK ROSE. Plants of medium height; flowers of medium size produced in such profusion as to cover the plant. A splendid variety for decorative use in the garden. Flowers borne over a long season. Bright carmine-red overlaid violet, resembling the color of the rose of the same name.

AMERICAN BEAUTY. One of the very best large shows of a brilliant crimson-red with French-purple suffusion, a rich glowing color. The flowers are produced abundantly on long stiff wiry stems.

AURORA. Center reddish apricot merging to soft pink which gets lighter toward tips.

WILLIAM AGNEW. Intense glistening crimson-scarlet, of large size, and gracefully recurving form. The most popular standard red.

PRINCESS IRENE. Finest white decorative; extra good bloomer.

SINGLE DAHLIAS.

JACK. Brilliant fiery scarlet, the base of the petals overlaid with golden yellow; the freest flowering Dahlia grown.

ADMIRAL DEWEY. Velvety dark red.

ROSE PINK CENTURY. Bright pink.

WHITE CENTURY. Pure pearl white.

TWENTIETH CENTURY. White at base and tips center of petals blush rose.

GLADIOLUS

The Gladiolus is one of the most decorative plants in the garden, and as a cut flower lends itself readily to any arrangement. If the spikes are cut when the lowest flower is in bloom, the others will open in succession and remain fresh a week or ten days.

Gladioli will thrive in almost any good soil except a stiff clay. They require full sunlight and are liable to injury only from rank manure. Plant the bulbs six to nine inches apart, the large ones four inches and the small ones two inches deep. Make an early planting of the smallest bulbs first as soon as the ground is sufficiently dry and warm. Continue to plant at intervals of two weeks during the spring and early summer; in this way a succession of bloom may be had from midsummer until frost. A free use of water during the season of active growth and particularly as the buds begin to show color will be beneficial in producing fine blossoms. In the autumn, before freezing, they should be dug and the tops allowed to dry down, after which the dry tops, earth and old bulbs can be removed. Store in a cool, dry place, secure from frost until spring.

NAMED VARIETIES.

These comprise some of the choicest sorts.

If by mail add 5c per dozen for postage.

America—A beautiful soft pink lavender, shading to very light, almost white. A most charming and attractive sort. 6c each; 60c doz.; \$5.00 per 100.

Augusta—A fine sort with large spikes. Pure white shaded with blue. 6c each; 60c doz.; \$4.50 per 100.

Halley—A delicate salmon pink with roseate tinge. The lower petals have a creamy blotch with a stripe of bright red through the center. The best of all salmon pinks. 6c each; 65c doz.; \$4.50 per 100.

Yellow Hammer—Pure yellow, extra strong grower 7c each; 75c doz.; \$6.00 per 100.

Baron Hulot—Deep violet blue. 8c each; 85c doz.; \$6.50 per 100.

Klondyke—Pale primrose yellow with crimson maroon blotch on lower petals. 6c each; 65c doz.; \$4.50 per 100.

Lily Lehman—Pure white shaded delicate rose. Very large spike. 7c each; 75c doz.; \$5.00 per 100.

Mrs. Francis King—Brilliant vermillion scarlet borne on long spikes. Flowers enormous, sometimes 4½ inches across. Most excellent. 6c each; 65c doz.; \$4.50 per 100.

Pink Beauty—Brilliant dark pink with red blotches. Very early. 7c each; 75c doz.; \$5.50 per 100.

Loveliness—Creamy white, large flowers, 7c each; 75c doz.

SEPARATE COLORS.

Scarlet and Crimson.—5c each; 50c doz.; \$3.50 per 100

White and Light.—5c each; 50c doz.; \$3.50 per 100.

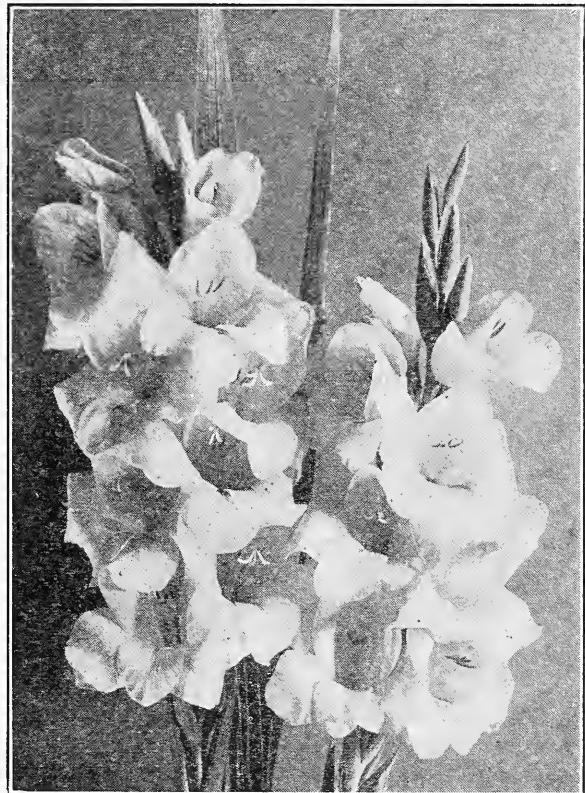
Pink Shades.—5c each; 50c doz.; \$3.50 per 100.

Striped and Variegated.—5c each; 50c doz.; \$3.50 per 100.

Yellow and Orange.—5c each; 60c doz.; \$4.00 per 100

MIXED GLADIOLUS.

JMC Superb Mixtures—Largest size bulbs. Brilliant colors and shades. 5c each; 50c doz.; \$3.50 per 100.



AMERICA GLADIOLUS

MADEIRA VINES (Mexican Potato)

A rapid growing vine with bright, smooth leaves which produce intense shade and valuable for covering fences, out-buildings, or screening porches. Plant the roots 2 inches deep. Vines should be trailed on strings or poles. Strong roots 5c each; 40c doz.; \$3.00 per 100.

LILIES.

Set the bulbs 6 inches deep. If the ground is very heavy, a handful of sand at the bottom of the hole will act for drainage.

AURATUM (Gold-Banded Lily)—A magnificent sort producing large broad creamy white flowers spotted with maroon and having a broad band of gold extending the length of each petal. Large size bulbs 30c each; \$3.25 doz.

SPECIOSUM RUBRUM—A magnificent sort. Color blush white with dark maroon spots. Very effective and handsome. Each 30c; doz. \$3.25.

TUBEROSES.

Well known summer flower, having a very sweet scent. Bulbs may be planted outside from April to June.

EXCELSIOR DWARF PEARL—The best of all double Tuberoses, producing very large finely formed flowers. First size bulbs, 7c each; 70c doz.; \$5.50 per 100.

Deciduous Shade and Ornamental Trees

FOR LAWN, STREET AND FOREST PLANTING



MAPLE, NORWAY.

	Each	Per Doz.
ALIANTHUS (Tree of Heaven)	8 to 10 ft.	\$1.50 15.00
ALDER (Alnus European,.....	8 to 10 "	1.00 10.00
" Imperial Cut Leaved.....	8 to 10 "	1.25 12.50
ASH, American White.....	8 to 10 "	1.25 12.50
" European.....	6 to 8 "	1.25 12.50
" Mountain European.....	8 to 10 "	2.00 20.00
BEECH, American.....	5 to 7 "	1.00 10.00
" European.....	5 to 7 "	2.00 20.00
BIRCH, Cut Leaf Weeping	6 to 8 "	2.50
" American White.....	6 to 8 "	1.50 15.00
BIRD CHERRY (Prunus Padus).....	6 to 8 "	1.50
BOX ELDER (See Maple Ash-Leaved).		
BUCKEYE, Ohio.....	4 to 6 "	1.50 15.00
CATALPA, Speciosa.....	8 to 10 "	1.25 12.50
" Bungei, grafted 1 yr.....		2.00
" " 2 yr.....		2.75
CHERRY, Japan Flowering.....	4 to 6 ft.	2.00 20.00
CRAB APPLE, Bechtel's double Fl'g	4 to 5 "	1.75 17.50
CYPRESS, Deciduous.....	6 to 8 "	1.50 15.00
EMPEROR TREE (Paulownia Imperialis)....	4 to 6 "	1.50 15.00
ELM, American.....	6 to 8 "	1.00 10.00

	Each	Per Doz.
HORSE CHESTNUT, White Fl'g.....	6 to 8 "	\$2.25
" Red Fl'g.....	6 to 8 "	2.50
LARCH.....	4 to 6 "	1.25 12.50
LINDEN, American.....	8 to 10 "	2.00 20.00
" European Broadleaf.....	8 to 10 "	2.00 20.00
LIQUIDAMBER—Sweet Gum.....		2.50 25.00
MAIDEN HAIR TREE (Salisburia)—Rapid growth, beautiful fern-like foliage resembling maiden hair fern.....	6 to 8 ft.	2.25
MAPLE, Ash-leaved (Box Elder).....	8 to 10 "	2.00 20.00
" Norway.....	8 to 10 "	2.50 25.00
" Scarlet.....	6 to 8 "	2.50
" Schwedlerii.....	6 to 8 "	5.00
" Silver.....	8 to 10 "	1.75 17.50
" Sugar or Rock.....	6 to 8 "	2.00 20.00
" Weir's Cut-leaved.....	8 to 10 "	2.50
MULBERRY, Weeping, Russian, 2 yr.....		2.75
OAK, Pin.....	6 to 8 "	2.00 20.00
" Red.....	6 to 8 "	2.00 20.00
" Scarlet.....	6 to 8 "	2.00 20.00
" White.....	6 to 8 "	2.00 20.00

PAULOWNIA—See Empress Tree.

	Each	Per Doz.
PEACH, Flowering Red and White.....	4 to 5 ft.	1.50 15.00
PERSIMMON, American.....	4 to 6 "	1.25
POPLAR, Carolina.....	8 to 10 "	.90 9.00
" Lombardy.....	8 to 10 "	1.00 10.00
SYCAMORE, American.....	6 to 8 "	1.00 10.00
STRAWBERRY TREE (Euonymous, European).....	3 to 4 "	1.75
THORN (Crataegus) Paul's Scarlet.....	4 to 5 "	1.25
" Double White and Pink.....	4 to 5 "	1.25
TULIP TREE.....	6 to 8 "	1.50 15.00
"	10 to 12 "	2.50 25.00
WILLOW, Golden Bark.....	8 to 10 "	1.75
" Laurel-Leaved.....	8 to 10 "	1.75
" Babylonica.....	6 to 8 "	1.50
" Weeping.....		1.50

NUT BEARING TREES

	Each
BUTTERNUT.....	3 to 4 ft. \$1.50
CHESTNUT, American Sweet.....	5 to 6 "
FILBERT, English.....	3 to 4 "
HICKORY, Shellbark.....	4 to 5 "
PECAN.....	2 to 3 "
WALNUT, English.....	2 to 3 "
" Black.....	8 to 8 " 1.25

ORNAMENTAL FLOWERING SHRUBS.

We do not guarantee to replace Plants, Shrubs or Trees.



There is nothing that will add more beauty or lend more enchantment to grounds and lawns than well selected judiciously grouped shrubs, and considering their moderate cost, they should be used more largely. Our book on "**What, Where, When and How to Plant**" gives details as to grouping and will be mailed free on request.

ALTHEA (Rose of Sharon).—The Altheas are among the most valuable of our hardy Shrubs on account of their late season of blooming, which is from August to October a period during which but few shrubs or trees are in flower. They are also extensively used as hedge plants, for which they are admirably adapted.

Each Doz.

ALTHEA BOULE-DE-FEU, deep fiery red..... .70 7.00

ALTHEA JEANNE D'ARC, double white..... .70 7.00

ALTHEA MEEHANI, beautifully variegated foliage with satiny lavender colored flowers, single fully open and free blooming..... .75 7.50

ALTHEA PURPUREA, large single purple..... .70 7.00

ALTHEA TOTUS ALBUS, single pure white..... .70 7.00

ALTHEA VARIEGATED LEAVES, leaves conspicuously margined creamy white, flowers double purple.... .75 7.50

ALTHEA DOUBLE ROSE, DOUBLE WHITE AND DOUBLE PURPLE..... .70 7.00

BARBERRY THUNBERGII—A beautiful Japanese variety of dwarf habit. Small foliage, assuming the most varied and beautiful tints of coloring in the autumn; very desirable for grouping and a grand hedge plant Strong plants. 2 to $2\frac{1}{2}$ feet..... .75 7.50
15 to 18 inch..... .50 5.00

BUDLEYA. (Butterfly Shrub or Summer Lilac.) Flowers continuously all season. The flowers are composed of many little blossoms in the shape and color of lilacs..... .60 6.00

CALYCANTHUS FLORIDUS (Sweet-Scented Shrub).—Flowers fragrant, like strawberries; double and of a chocolate color..... .50 5.00

DEUTZIA GRACILIS, a dwarf bush, covered with spikes of pure white flowers in early summer..... .75 7.50

DEUTZIA LEMOINEII—Flowers pure white. Habit dwarf and free flowering. Extra strong plants..... .75 7.50

DOGWOOD (Red Twigged).—A strong growing bush, with crimson-colored branches, especially attractive in winter..... 1.25

DOGWOOD—(White Flowering).—The flowers produced in spring before the leaves appear, are from 3 to $3\frac{1}{2}$ inches in diameter, white and very showy. Foliage grayish green, glossy and handsome, and in the autumn turns to a deep red; one of the most showy flowering trees..... \$1.00 \$10.00

DOGWOOD (Red Flowering).—A rare variety, similar to the common type except in color of the flowers, which are rich rosy-red. The two varieties make a fine contrast. 1.00 10.00

EUONYMUS EUROPAEUS (Burning Bush).—A conspicuous shrub, in the autumn and winter when loaded with scarlet seed pods, from which the orange-colored berries hang on slender threads, 3 feet. Extra strong plants..... 1.00

FORSYTHIA FORTUNEI (Golden Bell).—Of upright growth, deep green foliage and bright yellow flowers in April..... .50 5.00
Extra Strong plants..... .50 5.00

FORSYTHIA VIRDISSIMA (Golden Bell)—Deep green; flowers bright yellow, a fine hardy shrub and one of the earliest to flower in spring..... .50 5.00
Extra strong plants..... .50 5.00

FRINGE

PURPLE OR SMOKE TREE (Rhus Cotinus) (A)—An attractive shrub having very curious blooms, which, when covered with dew, resembles a cloud of smoke or mist..... .75 7.50

WHITE FLOWERING (Chionanthus) (A)—A small native tree or shrub of roundish form, with large, glossy leaves and drooping racemes of pure white flowers, having narrow, fringe-like petals. A superb lawn tree. Blooms in May or June..... 1.00 10.00

ORNAMENTAL FLOWERING SHRUBS—Cont'd.

HYDRANGEA PANICULATA GRANDIFLORA. This is the finest shrub in cultivation, and endures heat and cold extremely well. The flowers, which are borne in dense pyramidal panicles in the greatest profusion, are white when they first open, but gradually change to rose and remain in good condition for weeks.
Extra strong plants. 2 to 3 feet..... \$.90 \$ 9.00

HYDRANGEA PANICULATA GRANDIFLORA
Standard or Tree Shaped.

These are fine specimen plants, four and five years old, trained to tree shape with about three feet of straight stem and nicely shaped heads, should bloom profusely the first year.
Extra strong plants..... 2.00

HONEYSUCKLE, Upright.

Valuable for handsome flowers and showy fruits. The following varieties are erect, upright growth. The climbing sorts will be found under the head of Climbing Plants.

MORROWI—A fine variety from Japan, valuable for its handsome fruit. 2 to 3 ft..... .65 6.50

RED TARTARIAN—Pink flowers which contrast beautifully with the foliage. 2 to 3 ft..... .65 6.50

WHITE TARTARIAN—Forms a high bush of creamy white fragrant flowers in May and June. 2 to 3 ft..... .65 6.50

LILAC COMMON (*Syringa Vulgaris*)—The common purple species, and one of the best, 3 feet..... .75 7.50

LILAC COMMON WHITE (*S. Vulgaris alba*).—Flowers pure white; very fragrant, 2 feet..... .75 7.50

MOCK ORANGE OR SYRINGA.—A well known shrub, with pure white, highly scented flowers. One of the first to flower. Extra strong plants..... .65 6.50

PRUNUS, Plum.

PURPLE LEAVED (*Pissardi*)—The finest purple-leaved small tree or shrub. The leaves when young are lustrous crimson, changing to a dark purple, and retain this beautiful tint till they drop late in fall. No other purple leaved tree or shrub retains its color like this. The flowers are small, white, single, covering the tree. 4 to 5 ft..... 1.00

PYRUS JAPONICA (Japan Quince).—Blooms in early spring; flowers dazzling scarlet. Makes an excellent hedge, 3 feet..... 50 5.00

SNOWBALL Viburnum.

COMMON (*Sterilis*).—A well known and favorite shrub, of large size, which bears large globe shaped clusters of pure white sterile flowers the latter part of May. 2 to 3 ft..... 1.00 10.00

SNOWBERRY.

A graceful shrub, three to five feet tall, with slender branches. Flowers white or pinkish, in summer. Berries white, produced in showy clusters, the branches bending under their weight..... .65 6.50

SPIREA. Meadow Sweet.

Elegant low shrubs of easiest culture, their blooming extends over a period of 3 months.

ANTHONY WATERER—A fine dwarf Spirea bearing dark crimson flowers all summer. One of the finest shrubs..... .75 7.50

BILLARDI—A fine rose-colored sort, which bloom nearly all summer. 3 to 4 ft..... .60 6.00

**SPIREA—Continued**

Each Doz.

THUNBERGII—Of dwarf habit, rounded, graceful form with slender branches, somewhat drooping. Flowers are small, white, appearing early in spring. Foliage narrow and yellowish green. One of the first Spireas to bloom, and much esteemed on account of its neat, graceful habit

1½ to 2 ft..... .75 7.50
2 to 3 ft..... .90 9.00

VAN HOUTTEI—One of the very finest of all Spireas. At the flowering season, in May or early June, the plant is covered with a mass of large, white flowers presenting a beautiful appearance. It is a beautiful ornament for the lawn at any season. Perfectly hardy, an early bloomer and one of the finest shrubs in the catalogue. 3 to 4 ft..... .60 6.00

WEIGELIA EVA RATHKE—A charming variety, flowers brilliant crimson, a beautiful, distinct clear shade, strong plants..... .90 9.00

WEIGELIA ROSEA NANA VARIEGATA—Leaves beautiful margined creamy white; flowers pink. It is a dwarf grower, and adapted to small lawns or gardens, 3 feet. Strong plants..... .75 7.50

HEDGE PLANTS

CALIFORNIA PRIVET—They are very valuable for shrubberies, with their clean, dark green foliage, which is rarely attacked by insects and keeps its green color mostly unchanged until late Fall, excepting *L. Ibota*, which turns a purplish hue. The privets are all well adapted for planting as ornamental hedges and do well in the dust and smoke of the city. Hardy, growing well in almost any kind of soil

15 inch..... \$.90 dozen; \$5.50 per 100.
1½ to 2 feet..... 1.00 dozen; 8.00 per 100.

EVERGREENS. Coniferae.

Cone bearing evergreens are especially ornamental for large grounds, and the dwarf varieties desirable for massing even in small plots. They are particularly attractive for Winter landscapes when deciduous trees are divested of their foliage. If carefully handled, evergreens transplant as successfully as any other tree, and those we offer are all balled and wrapped with burlap. April is regarded by nurserymen generally as the best month for transplanting evergreens, though quite large numbers are put out in the fall.

ARBOR VITAE. *Thuja*.

Well known evergreens having mostly flat branches and of various shades. Some sorts are particularly desirable for hedges.

American—A beautiful native sort, commonly known as White Cedar. Grows very symmetrically and is excellent as a single plant or for massing, and largely used as hedge plants or for screens. 2 to 3 ft., each, \$1.50, \$15.00 per dozen. 3 to 4 ft., each, \$2.00, \$20.00 per dozen.

Compacta—A dwarf compact sort. 1½ to 2 ft. each, \$2.50.

Pyramidal—Of upright compact habit like the Irish Juniper, very desirable for tubs. 2 to 3 ft., each, \$2.75, \$27.00 per dozen. 3 to 4 ft., each, \$3.25, \$32.50 per dozen.

Siberian—The best of all sorts for this country. It is exceedingly hardy, keeping its color well in winter. Of compact growth, pyramidal, makes an elegant lawn tree of great value for ornament or for screening, hedges and tubs. 1½ to 2 ft., each, \$2.25.

CYPRESS. *Retinopora*.

Rare and choice evergreens of graceful habit and beautiful foliage.

Golden Thread-Branched (Filifera Aurea)—A golden-branched variety having fine cut leaves and of weeping habit, 2 to 3 ft, \$3.50 each.

Obtusa—Beautiful fern-like branches, more or less weeping. Foliage bright green. 15 to 18 inches. Each \$3.50.

Plumosa—A beautiful evergreen with finely cut foliage, which is very bright fresh green. 2 to 3 ft., each, \$2.50.

FIR. *Abies*.

Balsam—Very erect, regular pyramid-shaped tree with dark green sombre foliage. It grows rapidly and is very hardy. 2 to 3 ft., each, \$2.25.

Silver (Colorado), (Concolor).—Without doubt one of the finest evergreens. Graceful habit, broad, handsome foliage, bluish above, silvery beneath. A grand tree. 2 to 3 ft., each, \$4.50.

HEMLOCK. *Tsuga*.

A beautiful and remarkably graceful native tree, with drooping branches, and delicate dark foliage, like that of the Yew. It is a handsome lawn tree, distinct from all other and makes a highly ornamental hedge, 2 to 3 ft., each, \$4.50. 3 to 4 ft., each, \$7.00.

We do NOT guarantee to replace.



BLUE SPRUCE

SPRUCE. *Picea*.

Erect growing trees, leaves needle shaped, scattered around the shoots.

Colorado Blue (Pungens Glauca)—One of the hardest and most beautiful of all Spruces; similar in form and habit to the white Spruce, but the foliage is of rich blue or sage color. 2 to 3 ft., each, \$6.00.

Koster's Blue—Similar to the preceding, except the foliage is much brighter blue; very rare. 2 to 3 ft., each, \$8.00.

Norway (Excelsa)—An elegant tree which is extremely hardy, of rapid growth, lofty, pyramidal form. Branches assume a graceful, drooping habit when the tree attains 15 to 20 feet in height. One of the most popular evergreens for planting, either as single specimen trees, or in masses, for effect or shelter. A splendid evergreen hedge plant. 2 to 3 ft., each, \$1.50. 3 to 4 ft., each \$2.00.

JUNIPER. *Juniperus*.

Irish—A distinct and beautiful variety, of erect dense, conical outline, resembling a pillar of green; very desirable singly, as a hedge, or for massing. 2 to 3 ft., each \$2.25.

Virginiana (Red Cedar)—A well-known American tree, varies much in habit and color of foliage, some being quite stiff, regular and conical; others loose and irregular. It makes a fine ornamental hedge plant. 3 to 4 ft., each, \$2.75.

Schotti—A dwarf pyramidal form with dense light green foliage; each, \$6.25.

PINE. *Pinus*.

Austrian—A remarkably robust, hardy variety with long leaves, stiff and dark green. It is one of the most valuable sorts, growing rapidly, and of spreading habit. 2 to 3 ft., each, \$2.25.

Mugho—A small pine of upright growth. Its general form is that of a pine bush. 12 to 15 in., each, \$2.25.

Stobus (White Pine)—A very beautiful and graceful pine, regular in form with horizontal boughs and dark green foliage, growing quite tall, surmounted by symmetrically formed crown. 2 to 3 ft., each, \$2.00.

FRUIT TREES

Select thrifty young trees in preference to old or very large ones; the roots are more tender and fibrous and they bear transplanting better and are more apt to thrive; they can also be more easily trimmed and shaped to any desired form, and in the course of a few years will usually outstrip the older ones in growth. If not prepared to plant when your stock arrives, "heel in" by digging a trench deep enough to admit all the roots and setting the trees therein, carefully pack the earth about the roots, taking up when required. Never leave the roots exposed to the sun and air. We do not guarantee to replace plants or trees.

SENT BY EXPRESS OR FREIGHT AT EXPENSE OF PURCHASER.

Apples

STANDARD

We can furnish all varieties usually catalogued, but the following list comprises the most desirable sorts:

5 to 7 feet, \$1.00 each; \$10.00 per dozen.

SUMMER VARIETIES.

EARLY HARVEST—Pale yellow, fine flavor, August.

GOLDEN SWEET—Pale yellow, sweet and good; August.

OLDENBURG (DUCHESS OF OLDENBURG)—Large, striped over a greenish yellow ground.

RED ASTRACHAN—Large, crimson, juicy, with rich sub-acid flavor; hardy. July.

YELLOW TRANSPARENT—Pale yellow, good quality.

AUTUMN VARIETIES.

FALL PIPPIN—Very large, yellow, rich, aromatic.

MAIDEN'S BLUSH—Large, beautiful, blush cheek.

RAMBO—Yellow, streaked with red; October to December.

RED BEITIGHEIMER—Pale cream, covered with crimson.

WINTER VARIETIES.

BALDWIN—Large, dark red, productive.

BEN DAVIS—Large, handsome, striped; good quality.

GANO—Deep red, fine quality; good shipper and keeper.

GOLDEN RUSSET—Medium, dull russet. crisp, juicy.

GRIMES GOLDEN PIPPIN—Medium to large, skin golden yellow, flesh crisp, tender, juicy, long keeper.

JONATHAN—Medium, red and yellow, flesh tender, juicy and rich.

NORTHERN SPY—Large, striped red; good keeper.

RAWLE'S JANET—Medium, yellow striped with red, rich, crisp and juicy; a long keeper.

ROME BEAUTY—Large, yellow shaded red, tender.

SMITH'S CIDER—Medium, tender and juicy; sub-acid.

WHITE PIPPIN—Large, pale yellow, rich, sub-acid.

WINE SAP—Medium, deep red, rich, sub-acid.

Crab Apples

5 to 7 feet.

\$1.00 each; \$10.00 per dozen.

HEWES CRAB FOR CIDER—Best cider crab grown.

YELLOW SIBERIAN—Golden amber, with red blush in sun.

HYSLOP—Deep crimson, very popular on account of its large size, beauty and hardness.

TRANSCENDANT—Skin yellow, striped with red.

Pears

STANDARD AND DWARF.

5 to 7 feet, \$1.50 each; \$15.00 per dozen.

BARTLETT—Large, clear, yellow, juicy. August.

FLEMISH BEAUTY—Large, juicy, rich and fine; September to October.

KIEFFER'S HYBIRD—Large, rich color and good quality.

LAWRENCE—Yellow, thickly dotted, fine flavor.

SECKEL—Small, yellowish brown, one of the best.

SHELDON—Large, round, russet-red. October.

TYSON—Large, yellow with brown cheek, sweet.

Quinces

4 to 5 feet, \$1.50 each; \$15.00 per dozen.

CHAMPION—Fruit bright yellow; flesh very fragrant and tender; October.

ORANGE—Large bright golden yellow, fine quality; flesh firm, cooks tender. October.

Peaches

4 to 5 feet, 60c. each; \$6.00 per dozen.

CHAMPION—Creamy white with red cheeks, free-stone, excellent quality early in August.

CRAWFORD'S EARLY—Large yellow, of good quality, freestone; early in September.

CRAWFORD'S LATE—Large, yellow with red cheek, freestone; last of September.

ELBERTA—Large, yellow with red cheek, flesh yellow; firm, juicy, of high quality, very prolific; September.

FITZGERALD—Large, yellow suffused with red, flesh deep yellow, best quality, hardy and productive; early September.

HEATH CLING—Large, flesh white, juicy and melting; October.

MOUNTAIN ROSE—Large, handsome red cheek, flesh white, juicy; one of the best; August.

OLD MIXON CLING—Large, yellow with red cheek; September.

OLD MIXON FREE—Large, yellow with red cheek; September.

SMOCK'S FREE—Large, yellow, very productive; late September.

Cherries

HEART AND BIGARREAU (Sweet).

4 to 6 feet, \$1.75 each; \$17.50 per dozen.

BLACK TARTARIAN—Very large, purplish black, juicy, rich, excellent, productive; last of June.

GOVERNOR WOOD—Large, light red, juicy, rich, delicious. Tree healthy and productive; June.

NAPOLEON—Large, pale yellow, firm, juicy, productive.

ROCKPORT BIGARREAU—Large, yellow, juicy, and sweet.

YELLOW SPANISH—Large, pale yellow with light red cheek; late June.

DUKE AND MORELLO (SOUR).

4 to 6 feet, \$1.75 each; \$17.50 per dozen.

DYEHOUSE—A very early and sure bearer; ripens a week before Early Richmond; fine quality; June.

EARLY RICHMOND—Medium, dark red, fine quality.

ENGLISH MORELLO—Dark red, rich, acid, juicy, and good.

MAY DUKE—Large, red and excellent variety.

MONTMORENCY—Large, red, fine flavor; finest acid cherry.

Plums

STANDARD.

ON PLUM STOCKS, 5 to 7 feet, \$2.00 each; \$20.00 per dozen.

ABUNDANCE—Large, yellow with heavy bloom, good quality, very prolific.

BEAUTY OF NAPLES—Medium size, green with purple cheek; abundant bearer.

BURBANK—The largest and best variety, color red, excellent quality, hardy and vigorous grower.

DAMSON—Small, oval fruit, purple, hardy, productive.

GERMAN PRUNE—Medium, oval fruit, purple, fine quality.

GREEN SAGE—Small, delicious, very prolific, fine quality.

LOMBARD—Medium, red, juicy, hardy and productive.

PURPLE EGG—Rich purple, fine flavor, best market variety.

RED JUNE—Large, red, fine quality; strong, vigorous grower. Finest extra early plum.

Mulberries

5 to 6 feet.

Price 90c. each; \$9.00 per dozen.

DOWNING'S EVERBEARING—One of the most prolific varieties, bearing an abundance of large, black, sub-acid fruits, hardy; fruits about three months.

NEW AMERICAN—An everbearing variety; large fruit of the finest flavor; hardy; fruits about three months.

Grape Vines, Small Fruits, Asparagus, Etc.

We do not guarantee to replace Plants, Shrubs or Trees.

Grape Vines

All Two-Year-Old Selected Stock

30c each; \$3.00 per dozen.

Black or Purple Grapes.

CAMPBELL'S EARLY—Bunch and berry large, glossy, black, sweet and juicy; fine quality.

CONCORD—Large, black grape, hardy and productive; juicy and sweet.

EARLY OHIO—Earliest black grape known; healthy and vigorous grower.

EATON—Bunch and berries very large, skin black and finest quality.

***IVES' SEEDLING**—Dark purple, sweet.

Red Grapes.

40c each; \$4.00 per dozen.

BRIGHTON—Bunch large, berries, red, round, excellent flavor; one of the earliest.

***CATAWBA**—Berries large, round, when ripe a dark copper color; sweet, rich, musky flavor.

DELAWARE—Small, light red, thin skin, very juicy, sweet, fine flavor.

White or Yellow Grapes.

40c each; \$4.00 per dozen.

NIAGARA—Vine remarkably hardy and strong grower; bunches very large and compact; berries large, greenish white, slightly ambered in the sun; skin thin but tough, and does not crack.

POCKINGTON—A seedling of the Concord, resembling that variety in leaf, vine, habit of growth, hardness and productiveness. Bunch and berry very large; attractive golden yellow color.

*Varieties marked with a * are best for arbors.

BLACKBERRIES.

90c. per Dozen; \$6.00 per 100.

ANCIENT BRITON—Large fruit, stems loaded with good sized berries of fine quality; vigorous grower, hardy.

EARLY HARVEST—Very prolific, choice variety.

BLOWER'S (new). Large, luscious berries, rich in quality and quantity.

ELDORADO—Large fruit, borne in clusters and ripen well together, fine quality, good keeper.

MERSEREAU (new)—Extremely hardy, berries sweet, rich, melting and luscious without core. Good keeper and shipper.

SNYDER—Medium size, sweet and juicy; extremely hardy and very productive.

DEWBERRY.

LUCRETIA—One of the low-growing, trailing blackberries. In earliness, size and quality it equals any of the tall-growing sorts. It has proved highly satisfactory wherever tried, and many say it is the best of the blackberry family..... 90c. per doz.; \$6.00 per 100

CURRENTS.

40c each; \$4.00 per dozen.

BLACK CHAMPION—Large bunch and berry, excellent quality, strong grower, very productive.

CHERRY—Fruit large, bunch small, deep red, acid.

FAY'S PROLIFIC—Extra large stems and berries, color rich red, fine quality, very productive.

POMONA—Bright red, extra fine quality and enormously productive; strong vigorous grower.

RED DUTCH—An old favorite variety with large red berries.

WHITE GRAPE—Large, yellowish white, sweet, excellent quality and valuable for the table.

GOOSEBERRIES.

40c each; \$4.00 per dozen.

DOWNING'S—Very large and fine quality.

HOUGHTON—Medium size, very productive.

SMITH'S IMPROVED—Large, thin skin, best for table use.

RASPBERRIES.

40c per Dozen; \$4.00 per 100.

RED JACKET—Large size, light crimson color, good quality and firm, vigorous, and productive. One of the best, well-tested, large early berries for the North.

CUMBERLAND—The largest black cap; a healthy, vigorous grower; very productive and of finest quality.

CUTHBERT—Large, firm, deep rich crimson, of excellent quality, tall, strong, vigorous, perfectly hardy and very productive. Ripens medium to late.

GREGG—A large black variety, fruit firm, of excellent quality and a good shipper.

SPRING STRAWBERRIES.

25 plants 50 cents; 100 plants \$1.50.

AROMA (Per.)—One of the finest for long distance shipping. The large berries are bright red to the center. Of conical shape, with prominent yellow seeds that help to make them very attractive on market. The quality is such that it is a leader with many growers.

BURBACH (P) (Imp.)—This variety is famous for its beautifully colored, large berries and mammoth crops.

GANDY (Per.)—Another old favorite. Its popularity, instead of decreasing is steadily increasing. The fruit is a dark red with dark red seeds. A very late berry that does best on a heavy clay soil. Should be planted with the Senator Dunlap as fertilizer.

HAVERLAND (Imp.)—It has always proven to be one of the best varieties.

HERITAGE (Per.)—The plants of this variety are good growers. The fruit is unusually large for one that continues to bear throughout the berry season.

SENATOR DUNLAP (Per.)—The demand for this variety has been increasing steadily, as it has an unusually long fruiting season. It bears immense quantities of large, handsome, rich, fine-flavored, dark red berries.

FALL BEARING STRAWBERRIES.

Superb and Progressive.

\$2.50 per 100.

ASPARAGUS ROOTS.

May be either planted in fall or spring. Dig up your ground deep, put plenty of well-rotted manure thoroughly mixed in the soil, throw out a bed about four to five inches deep, lay the plants in by spreading the roots out well and scatter the dirt over the plants about four inches, or the depth of the ground thrown out, firm the dirt well around the plants by patting it down with spade or shovel, then top dress the ground with about three inches of well-rotted manure, and scatter salt enough over the top of this to make the ground white enough to track a rabbit. The second year after planting you will be able to harvest enough asparagus for a good-sized family from a bed of about 200 plants. You can plant about 200 plants in a bed three feet wide and fifteen feet long. You should keep the crown of the asparagus cut regularly so it will produce from three and one-half to seven pounds of asparagus, and when planted in small beds, where it can be well mulched and cared for, will even do much better than this. It is necessary to start with good roots. It depends much more on the care taken of the plants and the plant food given them than it does the variety planted. Salt should be put on at the end of every season, in the spring of the year.

ASPARAGUS ROOTS—Two-year-old.

	Per 100	Per 1,000
Barr's Mammoth	\$1.25	\$9.00
Columbia Mammoth White	1.25	9.00
Conover's Colossal	1.25	9.00
PALMETTO	1.25	9.00

DISTANCES FOR PLANTING. Grapes, rows 10 to 16 feet apart, 7 to 10 feet in rows. Blackberries, 6 to 7 feet apart, 3 to 5 feet in rows. Currants, 4 feet apart each way. Gooseberries, 4 feet apart each way. Raspberries, rows 5 feet apart, 3 feet in rows. Strawberries, for field culture, rows 3 to 3½ feet apart, 1 to 1½ feet in rows; for Garden Culture, plant in beds 4 feet wide, 3 rows in each bed, plants 1 foot apart in rows.

GENERAL LIST OF GRASS SEEDS



As the prices of many of the following seeds are subject to weekly and sometimes daily fluctuations we can not give them here but will be pleased to quote lowest market prices at any time.

If orders are entrusted to us they will be filled at the lowest market prices on the day received.

IF GRASS OR CLOVER SEEDS ARE TO BE SENT BY MAIL ADD 5c PER LB. EXTRA FOR POSTAGE

ORCHARD GRASS.

(*Dactylis glomerata*)

Particularly suited to upland, loamy or moderately stiff soils. It ripens 3 weeks ahead of Timothy and is excellent to sow with Red Clover. It should be cut when in bloom as at that time makes most nutritious hay but if allowed to become old it contains a great deal of woody fibre; usually yields two crops and is one of the most valuable grasses for both pasturage and hay.

If sown alone it requires 1½ to 2 bus. per acre; if with Red Clover 1 to 1½ bus. of Orchard Grass to 5 to 6 lbs. of Red Clover. If for seed the same quantity of Clover and ¾ of a bu. to 1 bu. of Orchard Grass.

"ACME"  Best—Current prices on request.

TIMOTHY.

(*Phleum pratense*)

Too well known to need description. It is the most desirable of all grasses for hay but should not be grazed as the trampling of cattle hoofs causes it to die. In this section Timothy is best suited to low, flat or alluvial soils where there is a fair amount of moisture but does not grow well in water sogged soil. Requires alone, 1 pk. per acre; if with Clover, 8 lbs. Timothy and 5 to 6 lbs. of Clover.



"ACME"  Best—Bags extra.

RED TOP OR HERD'S GRASS.

(*Agrostis Vulgaris*)

Particularly suited to low and wet situations and affording a splendid pasturage and fair crops of hay. Ripens at about the same time as Timothy and excellent to sow with this grass if pasturing of meadows is contemplated. It is also valuable to sow on alluvial land liable to wash and when once established and some care taken will last indefinitely.

Seed is of three classes:

FANCY (free of chaff) requires 8 to 10 lbs. alone or 3 to 4 lbs. (in mixtures) per acre.

"ACME"  Best Fancy—Current prices on request.

Export Fancy—Current prices on request.

UNHULLED (seed with hull on) 1 bu. per acre

CHAFF Current price on request. .

TALL MEADOW OAT GRASS.

(*Arrhenatherum elatius*)

A very fine grass which is suitable for upland soils and especially valuable for mixture with Orchard grass. It ripens about the same time and does not have a tendency to grow in clumps or tufts—hence, forms a better sod. Cut when in bloom it is very nutritious and it affords wonderful amount of pasturage. Requires alone 1½ to 2 bus. per acre; in mixtures from ½ to ¾ of a bu.

"ACME"  Best—Current prices on request.

GENERAL LIST OF GRASS SEEDS—Cont'd

MEADOW FESCUE

(*Festuca elatior*)

A most valuable grass for pasture and affords good crops of hay where particularly suited. It grows best on low damp soil and is especially desirable for all permanent pastures. (Called Evergreen Grass in some sections).

Requires one bu. per acre, if alone. In mixture, from $\frac{1}{2}$ to $\frac{3}{4}$ of a bu.

"ACME"  Best—Current Price on request.

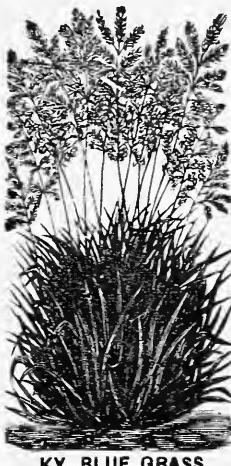
KENTUCKY BLUE GRASS. (*Poa pratensis*)

A well known pasture grass which grows well on any stiff or loamy soil in central or northern states. It is indigenous to sections of Ohio, Kentucky and Missouri and in these sections is the main grass depended on for pasture or for stock grazing for which these sections are famous. There is no better or more nutritious pasture.

Kentucky Blue Grass is also largely used for lawns and when once established lasts indefinitely. It is slow starting, however, and for lawns should be mixed with other quick growing short grasses. For pastures, sow $1\frac{1}{2}$ to 2 bus. per acre; for lawns, 4 to 5 bus. per acre.

CANADIAN BLUE GRASS. (*Poa compressa*)

Closely akin to Kentucky Blue Grass but not nearly so valuable for general purposes. Canadian Blue Grass is particularly well suited to high, dry situations and rocky soil, also under trees where the soil is more or less impoverished and very dry. It does not make a very good turf as it produces a large amount of stems and comparatively little forage. Valuable for mixtures and upland soil for pasture.



KY. BLUE GRASS

PERENNIAL RYE GRASS. (*Lolium perenne*)

A quick growing grass which is most suitable for mixtures, pastures, hay and lawns. Succeeds well on almost any soil not water sogged and affords good quick, nutritious grazing. If alone requires $1\frac{1}{2}$ bu. per acre. In mixture, from 2 to 3 pkgs. per acre.

PACEY'S IMPROVED SHORT RYE GRASS.

Similar to above except that it does not grow quite so tall and is superior for lawns and fine pastures to Perennial Rye Grass.

ITALIAN RYE GRASS. (*Lolium italicum*)

In growth somewhat similar to Perennial Rye Grass but little quicker maturing. It is especially liked in Southern States and in most of the low Delta country yields good crops of very early hay. Valuable for mixture or quick hay crop. Requires same quantity per acre as Perennial.

"ACME"  Best.

SHEEP FESCUE. (*Festuca ovina*)

An extremely valuable pasture grass for high, dry situations or rocky or gravelly soils. It affords excellent grazing and withstands adverse conditions often when many other varieties burn out. The foliage is of fine texture and it has a tendency to grow in tufts and close grazing is desirable. Especially valuable for mixture.

Requires alone $1\frac{1}{2}$ to 2 bus. per acre. In mixture $\frac{1}{2}$ to 1 bu.

"ACME"  Best.

CRESTED DOGSTAIL. (*Cynosurus cristatus*)

Very much esteemed for lawns and mixtures in many of the northern states, producing a quick growth of short grass, which is, however, of little forage and many stems.

SPECIAL MIXTURES FOR PASTURES, MEADOWS, Etc.

BEST SPECIAL MIXTURES FOR GOLF COURSES, POLO GROUNDS, ATHLETIC COURSES AND LAWNS.

We supply in this vicinity nearly all of the cemeteries, public parks, golf courses and other places where considerable quantities of grass seed are used and are prepared to make very reasonable prices for highest quality seed.

We put up special mixtures for all purposes and will be very glad to estimate on any special mixture that may be required.

We offer mixtures which can be relied on to be the very highest quality and prices are very reasonable. See page 3 for descriptions.

Constant experimenting has shown that a heavy stand and prolonged growth can only be obtained by sowing a **MIXTURE OF SEVERAL KINDS OF GRASS SEEDS**. In our special mixtures we use varieties best suited to the different soils and purposes for which they are recommended. Those for permanent pasture are composed of grasses that succeed each other in growth thus furnishing good grazing from early spring until late fall.

Nothing but our "Acme"  Best-grades are used which means the best obtainable. We will be glad to give you the benefit of our knowledge and experience and advise you as to grasses suitable to your wants.

CLOVER—Grass and Grain Seeders, see page 87.

"ACME" CLOVER SEEDS

Prices are so erratic they can not be given here. Will be glad to submit prices and samples at any time.
Bags for Clover Seed holding 2½ bus. extra and must be remitted for on all orders.

RED CLOVER. (*Trifolium pratense*)

Too well known to need extended description. Can be sown either in the spring or fall and requires $\frac{1}{8}$ to $\frac{1}{6}$ of a bu. per acre alone or 5 to 6 lbs. per acre if in mixture with grasses.

"ACME" Best — Bags extra.
 Current prices on request.

MAMMOTH OR SAPLING CLOVER.

Similar to Red Clover but of larger growth and blooms 3 weeks later—hence, more valuable for sowing with Timothy. It also forms better aftermath than Red Clover. Requires same quantity of seed as Red Clover per acre. Current prices on request.

ALSIKE CLOVER (also called Swedish Clover).

Similar in growth to Red Clover but not quite so vigorous. Blossoms flesh color. Blooms later and at the same time as Timothy. Valuable for hay and more satisfactory for pasturage as it lasts longer and will stand more grazing.

If sown alone requires 5 to 8 lbs. per acre or in mixture 3 to 4 lbs. per acre.

Bokhara or Sweet Clover.

It is suitable for almost all classes of soil and especially desirable on loamy, sandy or alluvial soils. Formerly it was used mostly for waste lands but many prominent stock raisers are using it extensively for both pasturage and hay, in many cases abandoning Alfalfa and substituting Sweet Clover.

Sweet Clover is of vigorous growth and withstands extremes of heat and cold as the tap roots penetrate the soil very deeply; and it does well on both barren hillside as well as bottom lands. Matures early. Can be cut two or three times in a season; has a delightful and sweet scented odor and the blossoms are particularly attractive to bees.

We offer below 3 classes:

WHITE SWEET CLOVER—A Biennial growing 5 to 6 ft. high having white blossoms borne in large panicles and extremely sweet scented. Reseeds itself if undisturbed or not cut in bloom.

Hulled seed (cleaned seed) requires 12 to 15 lbs. per acre. Bags extra. Current prices on request.

Unhulled (seed in the rough).

YELLOW SWEET CLOVER—A Perennial not quite so tall growing as the White but more desirable for pasture as the life season is much longer, producing an abundant yield of forage.

HUBAM CLOVER—The new annual white sweet clover, Hubam, discovered by H. D. Hughes of the Iowa Agricultural Experiment station, was grown during the last summer on a 140-acre farm near Onowa by some former students of Iowa State College. The clover grew to a height of 8 feet 2 inches in some cases and averaged 4 feet 6 inches.

The seed was sown on both fall and spring plowed lands and the best crops resulted from the fall plowing. Although the season was dry a good return was had. Seed was sown in rows 36 inches apart and 8 to 10 pounds of seed to the acre was found to be a good rate of planting. A return of 200 pounds of seed per acre was received. While this crop was sown in rows for seed recent experiments favor broadcasting as the better method for a uniform stand.

The value of Hubam as a green manure crop is great, say the experts, and the feed value should be good, although the high price of seed has kept experimental tests back. Per lb. \$1.25 10 lbs. \$10.00

Japan Clover

This Clover is especially adapted for the South because it occupies the same position in pasture mixtures for the South that White Clover does in the North. Will thrive on poor land, and as it grows thickly soon furnishes abundant pasturage. Good stands have been secured by simply sowing the seed broadcast during March, April or May at the rate of 10 to 12 lbs. per acre. This Clover is a half-hardy annual without any objectionable root system. (25 lbs. per bushel.) Current prices on request.

WHITE CLOVER. (*Trifolium repens*)

Well known and indigenous to most soils throughout this section. It is largely used for lawns and pastures, producing very quick growth and covering the soil with a bright, vivid green very thickly. Particularly suited to sandy soils and in some localities where grasses do not grow well.

Requires 3 to 4 lbs. per acre alone or in mixtures 1 to 2 lbs. "ACME" Best Grade.

Crimson or Scarlet Clover.

This Clover grows about two feet high, makes good hay and is excellent for feeding green, the yield being immense; and after cutting it at once commences to grow again, and continues until freezing weather, but being an annual, dies after maturing its seed. Should be sown in August to October, also early Spring. (12 to 15 lbs. per acre.) Current prices on request.

Alfalfa or Lucerne

Alfalfa is being more generally grown, as experience is teaching our farmers the proper methods to follow. Once established, it is such a profitable crop that every farmer can afford to take great pains to obtain a stand. It requires cutting at least twice the first season, even if not large enough to make hay. Cutting destroys any weeds that may come up in it and gives the Alfalfa a chance. Must be sown at the rate of 20 to 25 pounds per acre when sown broadcast. Different soils do not seem so difficult to overcome, especially where they can be properly drained, pulverized, sweetened and inoculated.

Alfalfa does not thrive on acid or sour land.

A liberal dressing of fine ground lime will be found a great benefit to the soil. May be sown from April 1st to June 15th for the early spring sowing, either drilled or sown broadcast. If broadcast cover lightly with a light drag or with single stroke of a harrow.

Much seeding is now done later and many prefer sowing from July 15th to September 15th. When seeded late it gives the grower an opportunity to have his land clean and free from weeds, and if weather conditions are favorable a crop is almost assured.

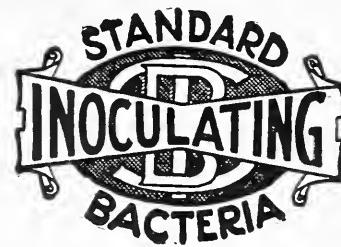
Alfalfa naturally prefers a deep, sandy or gravelly subsoil. Roots from 3 to 15 feet deep and a good stand on properly selected land should yield from 3 to 5 cuttings a year. Current prices on request.

"ACME" Best American Seed — Current prices on request.

Best Imported Seed—Current prices on request. Price fluctuates. Ask for quotations.



Inoculated RED CLOVER Not Inoculated

**The Guaranteed Legume Inoculator****Grown Direct From Nodules****Highest Possible Virility**

Standard Inoculating Bacteria are grown direct from the nodules. All bacteria sent out are of the second generation from the nodules. This laboratory technic in the preparation of these culture insures the highest possible virility and therefore positive inoculation and an abundance of nodules. It is a fundamental of bacteriology that the further removed from the initial germ, the less virile. Bacteria planted and replanted to generations far remote cannot and do not insure healthy inoculation and use of such often results in failure. Standard cultures bred direct from the nodules and furnished to you only one generation removed from such nodule is what has placed them at the head of the list of all legumes cultures and caused them to be the most widely used in the United States.

Standard cultures are not cheap cultures. They may be cheaper in price than some but in price only. The price is still consistent with high quality. They cannot be made better even if ten times the price were offered. Every package is fully guaranteed.

Not only in virile properties do Standard cultures excel but the character of the containers has much to do with preserving and insuring such virility right up to the time of use. They are put up in amber colored bottles (ex-

cluding the blue light ray which is deadly to many germs) with rubber corks and with glass air tubes and cotton filters. Thus prepared all foreign and destroying germs are excluded yet the nitro bacteria within the bottles are fed with sufficient nitrogen to keep them alive and virile even for years.

All legume crops should be inoculated. Few soils contain sufficient bacteria to provide self-inoculation. Artificial inoculation with pure cultures has long since been determined by the experiment stations to be the only safe and sure way. Few soils unless heavily fertilized contain enough nitrogen to carry a legume crop to maturity and a maximum yield unless the proper inoculating bacteria be present in the soil and active. Inoculated legumes take their supply of nitrogen from the air and not only feed themselves during growth but store up a surplus in the nodules formed on the roots as a supply for succeeding crops. But unless such proper bacteria are supplied or present there will be no nodules. Neither will the crop be a maximum. A good legume crop will store up in soil for use of future crops as much nitrogen as can be obtained for thirty to fifty dollars in commercial nitrogen carrying fertilizer materials. Take no chances. Inoculate all legumes with Standard cultures.

What the Experiment Stations Say

Bulletin No. 53, South Carolina Experiment Station, says:

"Inoculation is not a cure all, but its proper use will send the farmer farther forward in three years than it has been possible for him to go without it in a generation."

"The peculiar values of legumes for maintaining and increasing the fertility of soils is due to certain bacteria which develop nodules upon the roots of leguminous plants and which have the unique power of rendering the free nitrogen of the atmosphere available for plant growth. Without these bacteria, legumes, like other crops, exhaust the soil of its combined nitrogen."—Ext. Farmer's Bulletin No. 315.

"All legumes grown either for the purpose of enriching the soil or for the crop must, in order to be of the greatest benefit to the land and the plants, be

provided with the nitrogen-fixing bacteria. It is believed that the artificial culture is the method most efficient, cheapest and freest from objectionable qualities."—Ext. Bulletin No. 71, Bureau of Plant Industry.

"It has been amply demonstrated, not only by hundreds of years of actual experience, but by numberless carefully conducted experiments in many countries and under widely varying conditions, that clover and numerous other legumes supplied with tubercle (nodule) bacteria obtain from the air through the agency of these bacteria, under favorable conditions, all the nitrogen they require, and that they leave in the soil considerable quantities for succeeding crops. In Europe the amount of nitrogen added to the soil by legume, beside that taken off in the crop, is estimated at 200 pounds per acre. In the United States the average for sixteen States is 122 pounds equivalent to not less than 800 to 1,000 pounds of Nitrate of Soda per acre."—Ext. Yearbook of Dept. of Agriculture for 1906.

Increases the Yield. Enriches the Soil. Hastens Maturity. Improves Feeding Value. Saves Fertilizer Bills. Easy to Apply. Full Directions in Every Package.

PREPARED FOR

Alfalfa
Soy Beans
Cow Peas
Sweet Clover
Red Clover

and all other legumes.

Crimson Clover
Alsike Clover
Vetch
Field Peas

Garden Peas
Sweet Peas
Field Beans
Garden Beans
Peanuts

PRICES

Garden Size.....	\$.50
1 Acre Size.....	.75
2 Acre Size.....	1.45
4 Acre Size.....	2.25
6 Acre Size.....	2.50

Add five cents per package for postage. One acre size sufficient for about 20 pounds of alfalfa, clover or other small seeds, and for about 90 pounds of peas, beans or other large seeds.

When ordering state crop to be inoculated.

Standard cultures are guaranteed by us and by makers.

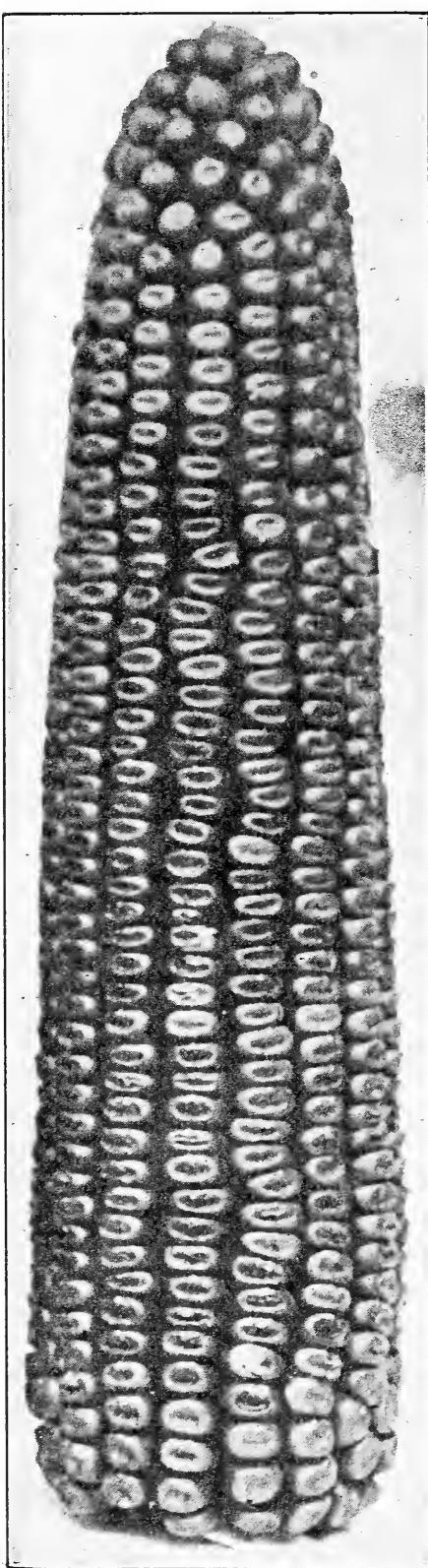
JMC SEED CORN JMC

All our Field Corn Seed is well matured, thoroughly cured, and shelled with the greatest care. We test all varieties before sending the seed to our customers that there may be no doubt as to the vitality. To avoid delay when ordering late in the season, it would be well for you to mention your second choice, or state whether we shall send you a sort adapted to your locality, or refund your money, provided we are sold out of your first choice when your order arrives.

Put up in two-bushel cotton, seamless bags. Bags, extra

At this date (January 1, 1922) it is impossible to name a price on field corn that would be fair to all.

Will be glad to quote you prices when planting season arrives and know you will find our prices as low as high grade seed can be sold.



WHITE VARIETIES

EARLY NORTHERN WHITE DENT—A particularly desirable sort for very early planting or very late planting, as it matures its crop in about 90 days. The ears are 8 to 9 inches long, of 16 to 18 rows, which are well filled. Grains moderate, white, dented.

This is largely planted in many sections for green table corn, as it produces 2 good ears to the stalk and is profitable.

HICKORY KING CORN—An old favorite sort which is well known in all localities. The ears are rather small but as they are borne 2 to 3 on a stalk it is a fairly good yielder. It has the largest grains and the smallest cob of any white corn ever introduced. So large are the grains that if an ear is broken off and the grain laid over the cob it will almost cover it. It is particularly fine quality and universally satisfactory.

RED COB ENSILAGE—Beyond doubt one of the best fodder corns, either to feed green, to put up for the silo, or to cure for hay. It is sweet, tender and juicy; has short joints and therefore an abundance of leaves, and grows to a fair height, but coarse-stalked. The seed is white and grows on a red cob, thus giving it the name.

SWEET FODDER CORN—For forage purposes, as it is the best of all corns both as green corn for ensilage or to be cut and used dry. Both the stalks and fodder contain large amounts of saccharine matter, which is both fattening and relished by stock.

YELLOW VARIETIES OF SEED CORN

GOLD STANDARD LEAMING—An ideal feeder's corn of light, golden color; ripening in about 100 days; ears slightly tapering and cylindrical. They grow 8 to 10 inches long, 7 to 8 inches in circumference, and are well filled at the ends. The ears are from 16 to 22 rows, there being little space between them. The cob is red, moderate size and the percentage of corn to cob varies from 86 to 90%. The per cent of protein which the grains contain is more than any other corn that we know of, and 4 bushels of Gold Standard Leaming will put as much fat on a hog or steer as 5 bushels of ordinary corn.

EARLY BUTLER—One of the earliest of all of the Yellow Corns, producing moderate sized ears of bright yellow color. The grains are long, and deep; cob, red and small. It is of strong growth, is very productive, and will give good results for an early sort.

IOWA GOLD MINE—An early yellow sort, ripening in 95 days, having good sized ears. It originated in the West, where it is very popular, and east of the Mississippi has found high favor among most growers. Grains are golden yellow, very deep, set on small cobs and an ideal sort for bottom lands or where there is trouble with curing, because it dries out easily and quickly without molding.

PRIDE OF THE NORTH—An extra early variety producing larger ears than Early Butler and just a trifle later. The grains are deep, narrow and set close on the cob. Ears, moderate length, 8 to 9 inches long, usually 2 on the stalk. On account of its quick maturing (90 days) and exceptionally fine yielding qualities, it is especially popular in northern sections for a quick maturing sort or for very early or very late planting in this section. Our stock of this is select, fire dried, butted and tipped.

GM[©] SEED OATS

We are very large handlers of these and always sell the most select stocks which have been carefully re-cleaned in our own mills. Do not compare our prices on Seed Oats with the ordinary commercial feeding oats which are so often sold for seeding purposes.

WINTER TURF OATS—These are far superior to spring oats in quality and if sown early in the spring will yield a larger and better crop. In good land they grow 4 to 5 ft. high, producing not only the best quality of feeding oats but better and more palatable straw for stock. The grain is very heavy; often a measured bushel weighs 40 to 42 lbs. Very thin husks, the grain or meat being very full and heavy. Requires 1½ to 2 bus. per acre. Special prices in large lots. Current prices on request.

WHITE SPRING OATS—Carefully selected stock thoroughly re-cleaned in our own mills. Current prices on request.

BLACK SPRING OATS—These usually do better on moderate land or thin land as they grow taller and yield a little better. They make more forage than spring oats and are better to cut green. Bags included. Current prices on request.

SWEDISH SELECT. It is an early white variety, producing grain of good weight and quality. Straw is medium in height and strong. Swedish Select, on account of its vigorous root action, can be recommended for a variety of soils, doing well on nearly all. Our stock of Swedish Select Oats is northern grown in a section of the country that has proven itself especially adapted to this crop. One hundred bushels to the acre is not an uncommon yield. Oats grown in a northern latitude are more vigorous, hardier and mature earlier than stocks grown anywhere else.



WINTER TURF OATS

COW PEAS

The Great Soil Improving Crop

One of the most productive and nutritious crops grown. The feeding value is high and for ensilage they are unsurpassed. As they are practically a **sure crop** and nitrogen gathering plant there is no surer or cheaper way of improving and increasing the productiveness of the soil than by sowing Cow Peas. They are entirely different from Canada Field Peas, really belonging to the bean family, therefore must not be sown until the ground is warm.

Will quote current price on application. Sow at rate of 1½ bushels to acre.

WHIPPOORWILL—One of the earliest varieties with brown speckled seed which grows in bush form. It is a favorite sort in the West and North on account of its early maturity and ease of cutting and harvesting.

BLACK—A little later and more trailing than Whippoorwill and produces more growth of foliage. It is better as a soil improver than Whippoorwills and in this section will make a larger yield of peas. Is especially valuable for hay or silage and the seed does not suffer from weather like Brown or Yellow seeded sorts.

NEW ERA—In comparison with other sorts we consider New Era one of the very best as it produces an abundant growth of vine and exceedingly large quantity of pods and matures earlier than other sorts. Reports of 40 bus. per acre have been made us and the peas, while smaller than Black or Whippoorwills are fully as nutritious. Seeds are dull, lead-colored and require less per acre than other sorts.

CLAY—Similar in growth to the Black, excepting the vines are a little more trailing. Color of the seed a very light brown. A popular sort in Tennessee and further south for all purposes.

BLUE WHIPPOORWILL—Peas drab color with blue spots; larger than ordinary Whippoorwills. Vines more trailing. A popular sort in the South.

MIXED COW PEAS—A mixture of Clays, Whippoorwills, Blacks, etc., which are somewhat lower in price than the straight sorts and they are just as satisfactory for soiling or hay.

BLACK EYE PEAS—One of the most popular and profitable of Cow Peas and very much esteemed in the Southeast and South as a table vegetable. Peas are white with distinct black eye.

Soja Beans Improve the Soil and Increase Crop Production

Soja Beans do equally well on both light and heavy soils, and in addition to their value as a forage crop, they make a most desirable land improver, not only improving the condition, but adding considerably to the humus and nitrogenous content of the soil, and considerably increasing the productivity for crops to follow. There is no crop that will clean land better than Soja Beans. It is almost impossible for any weeds to grow or thrive where a crop of Soja Beans is sown, and for effectively eradicating wire grass or obnoxious weeds from the soil, we do not know of anything better.

Soja Beans Particularly Valuable for Hogs

Soja Beans are also particularly valuable to plant for hogs. They can be planted by themselves for this purpose, or in the corn rows, and the hogs turned in to feed on the beans after the corn is harvested. Soja Beans contain more protein and fattening qualities than corn.

Prices on Soja Beans fluctuate like those of Cow Peas. Current prices on request.

MEDIUM GREEN—A popular sort in this and more northern sections producing moderate growth of vine and maturing beans very early. It yields well and is especially valuable for very early sowing or late seeding.

ITO SAN—One of the earliest of all Soja Beans having light yellow seed. Vines small; beans borne in dense clusters. A popular sort in northern sections on account of its quick maturity.

MAMMOTH YELLOW SOJA BEANS—The most largely grown variety and especially popular in the South where it yields enormous quantities of beans. Beans are large, oval, yellow, excellent quality; vines tall producing an immense amount of foliage and beans. This is by far the best and largest yielding sort provided it can be sown early but takes a full season to mature in this locality.

VELVET BEANS

A very popular crop of the extreme Southern states on account of its tremendous growth of vine. In ordinary season, even in this latitude it will grow 40 ft. long; consequently, is a tremendous soil improving crop. As the vines, however, attain such great length they are hard to handle unless with a cutter on the plow. They do not mature seed except in extreme Southern states.

Plant in May or June, 1½ pkgs. per acre, in drills 5 ft. apart. Current quotations on request.

VETCH

Hairy or Sand (Vicia Villosa)—Recommended for fall sowing, only.

Spring Vetch (Vicia Sativa)—This is used in the North and in some other sections for sowing with Oats for producing a spring crop of hay. Especially popular in the northern Pacific States and European countries. Current price on request.

CANADA FIELD PEAS—Grown with Oats make a fodder or hay which doubles the production of Milk. Current prices on request.

They should be sown in March or early April, two bushels of peas and two bushels of oats to the acre. The peas should be sown first and plowed under about 4 inches deep; the oats then sowed and harrowed in. They will be ready for cutting about the latter end of June, when the oats are in milk and the pods formed on the peas. Prices variable.

SUNFLOWER (Mammoth Russian)—The best variety for the farmer. Drill in seed at the rate of about 7 lbs. to acre. It is much relished by poultry and horses. Current prices on request.

GMC MILLET

Largely used as a summer hay crop and particularly adapted for rich or bottom soils; also very useful for cleaning rich, foul lands of weeds as its quick, abundant, luxuriant growth smothers most weeds.

Price fluctuates. Ask for current prices.

GOLDEN MILLET (Choice Tennessee Cultivated)—The most popular of Millets and if properly grown makes large and excellent crops of nutritious hay. It should be sown thickly and cut when the heads are in bloom and if for hay never allowed to get old or seed to form as this causes a great drain on the soil, besides materially injuring the quality of the hay.

Tennessee Cultivated Millet is far superior to the common Western stocks. It will produce large crops of hay in 6 to 8 weeks from sowing.

Sow 1 bu. per acre in May, June or July. Two crops can be seeded on the same land a year if desired.

HUNGARIAN—Specially adapted to rich or alluvial soil. It makes a finer quality of hay than Millet on very rich soil as it does not grow so coarse. Cut at the right time, which is in bloom, and cured properly it makes as nutritious hay as timothy; is especially popular with dairymen.

Sow from ¾ to 1 bu. per acre in May, June or July. Current prices on request.

KAFFIR CORN

A favorite grain crop in the West growing similar to Sorghum. Foliage and stalks, however, do not contain saccharine matter—hence, are not so valuable for feeding but the enormous yield of grain makes it very profitable. The grain is very largely used for poultry and stock feeding, containing a high percentage of starch. Current prices on request.

BARLEY

Barley needs a rich land and lighter than that adapted to Wheat. It should be cut before fully ripe (unless intended for seed), as it is then of better quality and less liable to shell. Sow 1½ to 2 bushels if drilled; 2 to 2½ bushels broadcast. (48 lbs. per bushel.)

Spring Barley, Beardless Barley—Current prices on request.

ROSEN RYE (Michigan Grown)

Grain unusually large and yield surpasses the old standard sorts.

BUCKWHEAT

A splendid soil improving crop for very poor land besides being largely grown for grain in northern and mountainous sections. It is also largely used for bees.

Culture—Sow in June, July or August at the rate of $\frac{1}{4}$ of a bu. to 1 bu. per acre broadcast, covering with a smoothing harrow. It does not mature its grain until the cool nights—hence, too early sowing is not desirable.

Japanese—This produces the largest yield of finest and largest kernel buckwheat. Superior to all other sorts. Current price on request.

Silver Hull—Much improved over the common Buckwheat. Grains, however, smaller than Japanese but yielding abundantly. Current price on request.

DWARF ESSEX RAPE

One of the best crops that can be grown for sheep or hog pasture. One acre will furnish enough feed for a dozen sheep for a period of two months. It can be planted from April to August—three pounds to the acre when drilled in, five pounds when sown broadcast. If planted in corn after the last cultivation, it will furnish a fine feed for grazing after the corn is cut. Current prices on request

SUDAN GRASS

Sudan Grass though of comparatively recent introduction into the United States has spread like wildfire over many sections. It produces an immense yield of hay which is nutritious and can be cut twice in a season. In appearance it resembles Johnson Grass; grows when broad-casted 3 to 5 ft. high, or if cultivated 6 to 10 ft. high, but is more nutritious than Johnson Grass, containing larger amounts of protein and fattening qualities. Its principal value is that it is adapted to almost any kind of soil and succeeds in nearly all climates, but produces the largest yield in warm and temperate latitudes, where there is an abundance of rain-fall. It does not blight, cures easily, is greatly relished by stock and can be easily grown if sown either broadcast or in drills. After the first cutting it stools enormously, and as many as a hundred stalks sometimes come from a single root. After frost Sudan Grass is killed, and entirely unlike Johnson Grass it can be easily gotten rid of, as the winter destroys it entirely.

Culture—Sudan Grass can be sown either in drills 2½ to 3 feet apart at the rate of 2 to 3 lbs. to the acre, and cultivated like corn, or broadcast 15 to 25 lbs. per acre. Seed should be sown about the time of planting corn and the hay cut when the grass is headed out, with a mower or binder. Early cutting is desirable as the hay is more nutritious and gives the grass a better chance for large succeeding crops.

Current prices on request.

SORGHUM OR CANE

Culture—Sow in May, June or July, either in drills 3 ft. apart at the rate of about 1 pk. per acre or broadcast 1 to 1½ bus. per acre. Cut after seed has matured.

Early Amber—A favorite sort in Northern and many Western states. Grows 10 to 12 ft. high. Price fluctuates. Current prices on request.

Red Top or Imphee—A favorite sort in Kentucky and Tennessee and one of the best varieties for general purposes both for stock feeding or making syrup. Current prices on request.

Early Orange—Similar in growth to Amber, except that the head is more spreading. A favorite sort in Southern and Western states where it produces large crops. Current prices on request.

BROOM CORN

This is usually a profitable crop and sometimes enormously profitable. A fair yield is a ton to 3 or 4 acres of ground and the seed is valuable for stock and poultry food in addition to the returns from the broom straw.

Culture—Sow in drills 3 ft. apart at the rate of 3 to 5 lbs. per acre, thinning out stalks to about 70 to the rod. Cultivate as for corn. Rich land requires thicker seeding and more stalks than medium or poor soil. Cut when the seed is in the milk state.

Improved Evergreen—A favorite sort in the middle West producing long, straight straw of greenish appearance after being cut, which commands the highest price. Current prices on request.

Give the Birds a Chance

Nature gave us birds as a natural combative force against the ravages of insects. We imported the English Sparrow—that was not Nature's fault. We should rectify our error, drive out the English sparrow, work together and bring back our native song birds.

"By far the most efficient aids to man in controlling the codling moth are the birds."

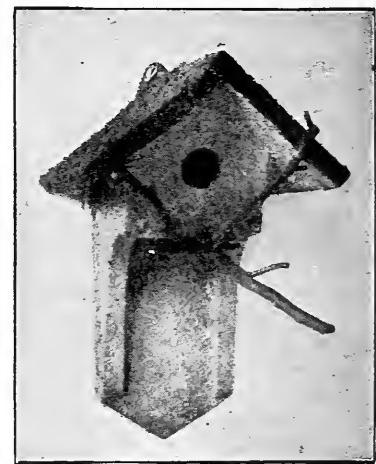
Year Book of the U. S. Department of Agriculture.

It has been shown that the codling moth does more damage to apples and pears than all other insects combined. Thirty-six species of birds attack this insect. In some localities the birds destroy from 66% to 85% of the hibernating larvae of these insects. More than 50 species of birds feed upon caterpillars and 36 species live largely upon destructive plant lice. One of the reports of the Biological Survey records finding 60 grasshoppers in the crop of one Night Hawk and 500 mosquitoes in another; 30 cut worms in the crop of a Black Bird; 70 canker worms in the crop of a Cedar Bird.

These Houses Will Bring the Birds Back to You Year After Year

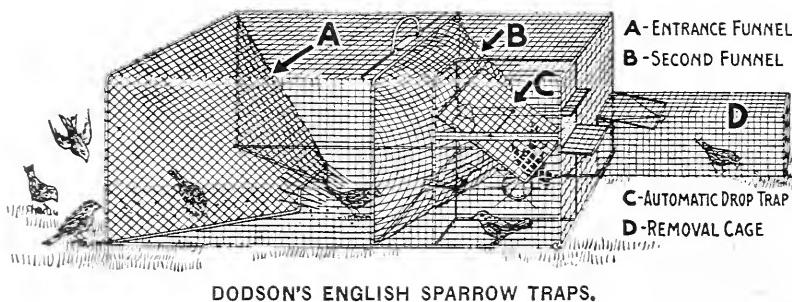
Besides being built for the true purposes of attracting the birds these Woods Craft Houses are well put together and made of selected materials in order to resist the action of the elements.

Only selected first class wood, thoroughly seasoned, is used in the construction of these houses. Years of experience have proven just what woods are most suitable for the different shapes of houses. The demand for the different artistic shapes necessitates that they be made of varied woods most suitable to the designs. Red Cedar, Oak, Cypress, and selected White Pine enter into their construction. The nails and cleats holding them together are thoroughly coated so as to resist rust.



PRICE LIST HUTS AND CABINS

These houses are constructed of a tinted stucco, which is indestructible and will last a lifetime. Instructions for placing on each hut. Help protect and multiply our native birds. They will repay in song and chirp, add attractiveness and enliven grounds, besides destroying countless worms, bugs, beetles and grasshoppers which devour vegetation.



Wren Hutlet.....	\$3.00 each
Chickadee Hutlet.....	3.00 each
Bluebird Hut.....	3.25 each
Titmouse.....	3.25 each
Robin Home.....	3.25 each
FlyCatcher.....	3.00 each
Woodpecker and Flicker Hut	\$3.25 to \$6.00

Dodson's English Sparrow Traps.....\$8.00
Mixed grain and seed for wild birds—5 lbs. 40¢; 10 lbs. 70¢; 25 lbs. \$1.50.

CLOVER SEED, GRASS AND GRAIN SEEDERS

ROYAL WHEELBARROW SEEDER (Chain Feed)

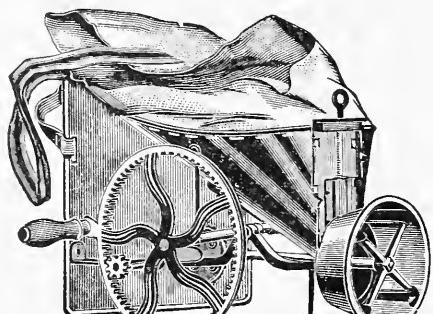
This new seeder is constructed on up-to-date principles. The quantity of seed sown is actually governed by the wheel, which moves correspondingly slow or fast as the machine runs over the ground. The seeder does not injure or bunch the seed, but evenly distributes it the full length of the hopper (14 feet). Wheelbarrow Grass Seeders have won for themselves the first place among all kinds of grass seeders.

Plain Seeder—Sows small seed like Clover, Timothy, and other seeds. Price, \$8.00.

Combined Seeder—Sows small seed like Clover, Timothy, etc., as well as light seeds such as Orchard Grass, Blue Grass, etc. \$9.00.

CAHOON BROADCAST SEED SOWER.

The standard broadcast Seeder and one of the best manufactured. Sows all kinds of grain, Clover, Timothy and heavy seeds. Has a capacity of 4 to 6 acres per hour at a common walking gait and distributes seeds uniformly in about one-fifth the time required by hand. Very simple in operation and easy to adjust for quantity. Price, \$5.00.



CAHOON BROADCAST SEEDER

TIN HORN SEEDER—A light, accurate Seeder which will broadcast clean seed from 30 to 40 ft. Length of the tube when extended is 30 inches. Good grade of heavy ducking is used on the sack. Weight only 12 ounces. Price, \$1.00.

CYCLONE BROADCAST SEEDER—A geared machine which works with a crank and which has given good satisfaction. It is strongly built, good material; has 4-inch throat and cannot be choked even with strawy oats. Adapted for all kinds of clean heavy grain and Clover seed Price, \$2.25.



RITTENHOUSE SEEDER—Formerly sold under the name of "The Little Giant." A general seeder, which has four pressed tin flanges and distributing wheel under the bottom; gearing wheel centered, making it easy to run. Has an accurate gauge. Sloping feed board and force-feed steel frame. This is one of the most widely used types. The sack holds one-half bushel; convenient hand hold and body shield. The machine is well braced. Price, \$2.25.

RITTENHOUSE MOLE TRAP

The simplest, safest and surest mole trap ever invented. Self-setting. No danger of its going off unless the trigger is touched. Made of all steel and tinned. The spears are spring steel, therefore do not have to be as long as soft steel. Price, \$1.00.

HUMUS

Exhaustive tests have proven that properly bacteriarized Humus makes a balanced feeding for plant life, a food that can not be supplied otherwise. It has been recognized for some time that not only nitrogen but phosphorous and potash feedings must first be digested from the soil by proper bacteria before they can become available for plant feeding. Bacteriarized Humus is not sold to eliminate the use of fertilizers but to release the natural fertilizers from the soil and make them available. The average soil contains enough potash, but due to improper cultivation or acidity only a small portion has ever become available.

No less an authority than Harvey W. Wiley makes the statement that the average fertile soil under cultivation contains enough potash if liberated properly by bacterial action to supply plant life for more than a thousand years.

The Humus we offer is taken from a bog seventy-five feet in depth and has undoubtedly been in process of formation since the end of the glacial period. This Humus or peat is then passed through processes which more thoroughly break up the fibers, destroy harmful bacteria and weed seeds and is then inoculated with selected strains of soil bacteria.

Our bacteriarized Humus is odorless, free from weed seed and contains no insects harmful to plant life.

For pot plants, the garden or greenhouse it is advisable to use at the time of planting, application being made to the seed row or to roots of the plant.

Facts—Food put into the human body will not sustain life unless properly digested. Plant food (fertilizer) put into the soil will not benefit plant life until it is digested. Our Bacteriarized Humus digests the fertilizers. 5 lbs., 25c; 25 lbs., 75c; 50 lbs., \$1.00; 100 lbs., \$1.75.

Insecticides, Fungicides and Fertilizers

These can not be sent by parcel post. All prices subject to market changes.

ARSENATE OF LEAD—One of the best and most effective of poisonous insecticides for leaf-eating insects, and more especially adapted to trees and shrubs, as it adheres to the foliage better. It is not so liable to be washed off by rains, and does not burn.

DRY— $\frac{1}{2}$ lb., 35c; 1 lb., 65c; 5 lbs., \$2.75.



KEY CIDE POWDER—This Bordo Lead Powder is a Combined Insecticide and Fungicide. Kills bugs and prevents blight, rot, mildew and fungus in one spraying operation. Can be used for wet spraying or dry dusting on fruits, vegetables or flowers. Complete spray for gardens. One pound makes about 7 gallons ready to apply.

$\frac{1}{2}$ lb. 35c; 1 lb. 60c.

BORDEAUX MIXTURE—For blight, mildew and all fungus diseases. Can be used alone or in connection with Paris Green or Arsenate of Lead. For hardy foliage such as apple, pear, potato, tomato, egg plant, use 3 to 4 qts. in 50 gallons of water. For tender foliage such as peach, cherry and cucumber, 2 to 3 qts. in 50 gallons of water.

$\frac{1}{2}$ lb. 30c.; 1 lb. 55c.

BLACK LEAF 40 (40%) Nicotine Sulphate)—Highly recommended by the Experiment Stations as a spray for Black Aphis and sucking insects of this class. Pkg., 30c;

$\frac{1}{2}$ lb. \$1.25; 2 lb. \$3.75.

DRY LIME AND SULPHUR—Mixes with water—becomes a liquid testing the same as standard liquid solutions. It is claimed that the brand we carry is the only powdered form that is exactly the same as standard liquid solutions and can with safety to the tree be used in combination with an arsenate as a summer spray without the disadvantage of bulk, weight, leakage, etc. 1 lb., 35c; 5 lbs., \$1.50; 10 lbs., \$2.25; 25 lbs., \$4.50.

LIME AND SULPHUR SOLUTION—An up-to-date remedy for San Jose scale and bark lice infecting fruit and shade trees. A superior fungicide and insecticide for Summer use. Qt., 40c; $\frac{1}{2}$ gal., 60c; gal., 90c; 5 gals., \$3.50; 25 gal. keg, \$8.75; 50 gal. bbl., \$15.00.

SCALECIDE (Pratts)—A preparation of malleable oils for San Jose and other scale and some other insects. It mixes with cold water and stays mixed but does not form an emulsion. It is not as disagreeable to use as Lime Sulphur. As a Winter spray use a solution 1 part Scalecide to 15 to 20 parts of water when trees are dormant. For Summer spray, 1 part Scalecide to 25 to 30 parts of water. Prices, Qt. 60c; 1 gal., \$1.50; 5 gal., \$6.50; 30 gal., \$27.00; barrel (50 gal.), \$40.00.

BUG DEATH—A non-poisonous powder to be applied dry or mixed with water and sprayed on the plants. It is death to the potato, squash and cucumber bugs, currant and tomato worms. It is best applied dry with a duster or bellows at the rate of about 12 lbs. per acre. Price, 1 lb., 20c; 3 lbs., 45c.

CARBOLA—The white paint that disinfects. 2 lbs., 25c; 10 lbs., \$1.25.

HAMMONDS SLUG SHOT—One of the best insecticides for Vegetables in use. Non-poisonous to human life. Price 1 lb. 20c; 5-lb. pkgs., 65c; 10-lb. pkgs., \$1.15. Pamphlet containing full information mailed free.

PARIS GREEN—Apply dry or in a solution of water. Paris Green is a strong and best known poison for potato bugs. Its effectiveness is recognized by all potato growers. Do not use on some fruits. On apple and other fruits use with Bordeaux Mixture. Never mix Paris Green with Lime-Sulphur solution. Price— $\frac{1}{4}$ lb., 20c; $\frac{1}{2}$ lb., 35c; 1 lb., 65c; 2 lbs., \$1.15; 5 lbs., \$2.75.

FISH OIL SOAP—One of the best and safest remedies for Scale, sucking insects and plant lice on vegetables, shrubs and trees. Kills Aphid, Thrip, Melon-Lice and all insects sucking juices from trees. Is also effective for preventing and destroying Borers in trees as a wash. $\frac{1}{4}$ lb., 10c; $\frac{1}{2}$ lb., 15c; 1 lb., 25c.

TREE TANGLEFOOT—For protecting trees against climbing insect pests in a simple, economical and effective way; put a band of tree tangle-foot, from 3 to 5 inches wide completely around the tree. A perfect safe-guard against Gypsy, Brown-Tail and Tussock Moth, Canker Worms and Ants, and other creeping insects. 1 lb., 50c; 5 lbs., \$2.40; 10 lbs., \$4.50; 25 lbs., \$10.50.

WEED KILLER—A highly concentrated solution which dilutes one part to 50 parts of water. It is effective within 12 hours after application and one application will keep paths and roadways free from weeds for an entire season. 1 qt., 65c; 1 gal., \$1.65; 5 gal., \$7.00.

WAX, Grafting—1 pkg., 15c; $\frac{1}{2}$ lb., 20c; 1 lb., 30c. (By mail add 5c per lb.)

PULVERIZED SHEEP MANURE—This is a pure natural manure and one of the most nutritious foods for plants. Its effect is immediate. It is very rich, safe and gives quick results. It will give excellent results on flower beds, lawns or in vegetable gardens, as it contains all the elements for promoting a quick, luxuriant growth, as well as adding body to the plant. Can be used either in dry form or dissolved to make a liquid manure. If applied dry, no raking off is required as it does not disfigure the grounds, nor does it contain seeds of foul weeds, nor offensive odor.

DIRECTIONS—For Lawns, apply broadcast at the rate of four to six hundred lbs. per acre in February, March or April in spring, or in September or October in the fall. For pot plants mix one part of sheep manure to six parts of soil. For use in the vegetable garden apply either broadcast and rake in or in drills and mix slightly with the soil. For liquid application use 1 lb. to 5 gallons of water. 5 lbs., 25c.

Prices—Package, 25 lbs. \$1.10; 50 lbs., \$1.65; 100 lbs., \$2.75.

ACID PHOSPHATE 16%—Soils containing a large percentage of Nitrogen and some Potash may still be deficient in Phosphoric Acid. This must be supplied for the purpose of producing a balanced combination of fertilizer elements, by the application of Acid Phosphate which produces a beneficial effect by supplying the proper proportion of Phosphoric Acid. Apply from 200 to 400 lbs. per acre.

5 lbs., 30c; 10 lbs., 50c; 25 lbs., \$1.00; 50 lbs., \$1.75; per bag of 125 lbs., \$3.00.

STIM-U-PLANT

AN ALL-THE-YEAR FERTILIZER FOR GARDEN AND HOUSE PLANTS

Growers of fine flowers, shrubs and vegetables for the best markets and for exhibition, fertilize and stimulate them frequently, a little at a time. An excellent fertilizer for this purpose is Stim-U-plantT, an odorless, highly concentrated plant-food, in tablet form, with guaranteed chemical analysis of 11 per cent nitrogen, 12 per cent phosphoric acid, 15 per cent potash. The proportions are accurate, there is no unnecessary filler, and in this form you are able to apply plant-food exactly when and where and as needed.

MAKE YOUR GARDEN A WONDER GARDEN

These tablets increase production, heighten color and improve quality. Many professional and amateur growers use them extensively all the year around—from early spring until late fall outdoors, during the winter for pot plants, hothouse benches, etc. They are equally good for evergreens and other trees as well as for ferns, petunias and other potted plants.

STIM-U-PLANT TABLETS

can be used in tablet form, or dissolved in water at the rate of one tablet to the quart. Complete directions with every package.

Order Stim-U-plantT tablets with your seed and plant order.

Price, 10 tablets for 15 cts.; 30 for 25 cts.; 100 for 75 cts.; 1,000 for \$3.50.



SAVES MONEY BY SAVING CROPS

It is estimated that rats and mice consume grain each year in the United States alone to the value of more than \$10,000,000. Most of this waste can be saved if Rax is given a chance.

RAX IS NOT A POISON

While it is absolutely deadly to rats and mice, it is harmless to human beings, domestic animals, poultry, and birds. It may be used anywhere with complete safety.

RATS LEAVE BEFORE THEY DIE

Within a few days after eating food prepared with Rax, rats and mice become feverish and seek the open air, thus never dying indoors—always outside.

HOW TO USE RAX

Add water to the bottle and shake contents until water is cloudy. Then moisten bait (bread, crackers or cheese) with the mixture and place it near the holes. Rax does not affect the taste of the bait.

Directions are furnished with each package. One bottle is enough for an ordinary house; allow one bottle to each 500 feet of floor space in large barns, mills, etc.

Price, 75 cts. per bottle, postpaid.

SPRAYERS, Compressed Air and Knapsack

AUTO SPRAY—A Self-Operating Automatic Sprayer

One of the strongest and most simple in its parts. It can be used in the garden, for small trees and shrubs or for spraying weeds, cattle or whitewashing.

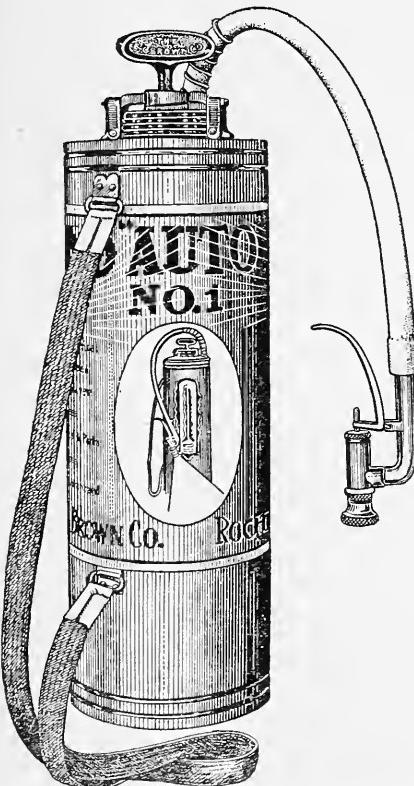
Equipment consists of two feet of half-inch hose, a fine sprayer nozzle, one solid steam cap and stop-cock for shutting off. A coarse, whitewash nozzle can be supplied extra if desired.

Auto Spray—No. 1-D. Galvanized steel with stop cock.....	\$ 7.50
Auto Spray—No. 1-B. Brass tank with stop cock.....	11.00
Auto Pop Attachments—For instantly shutting off the spray. Worked with the thumb and usually very desirable.....	.60
Extension Pipe—2 ft. lengths for spraying tall shrubs, trees, etc. Solid Brass, each.....	.75
Two Row Attachment—Each.....	2.00
Brass Elbow Extension—Each.....	.30

HUDSON COMPRESSED AIR SPRAYER

The Hudson Perfection Sprayer has a tank made like a steam boiler. The all-riveted seams give the necessary strength for developing a high pressure, which is absolutely essential for good results. The all-brass pump is placed inside the tank and is easily removed.

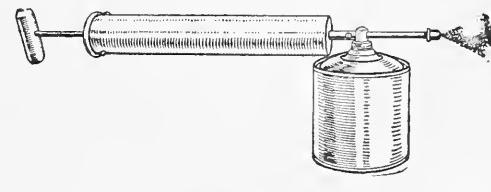
No. 110G. Galv. Tank. Price, each.....	\$ 7.00
No. 110B. Brass Tank. Price, each.....	10.00



ROBERTSON CONTINUOUS SPRAYER

This gives a uniform and continuous spray on both the forward and backward stroke of the plunger. The straight tube and nozzle as well as the siphon tube are all removable for the purpose of cleaning.

Can be used for insecticides, applying oil, disinfectants as well as regular spraying materials and gives a fine effective spray. Capacity 1 qt.



All Tin.....	\$ 1.00
Brass.....	2.00

Brass Spray Pumps

These are the best equipped pumps made and are to be used in buckets, barrels, etc.

They are useful not only for Insecticides but whitewashing and pumping in small quantities.

A complete catalog of these will be mailed on request. Those listed below will be found thoroughly satisfactory and our prices are much lower than the manufacturer's list prices.

MYER'S LEVER BUCKET SPRAY PUMP No. 324

A new pattern, 1½-inch cylinder; can be used in a bucket or attached to the top of a barrel. Has Vermorel nozzle throwing fine or coarse spray and single stream. Patent agitator. Price..... \$7.00.

LITTLE GIANT SPRAY PUMP

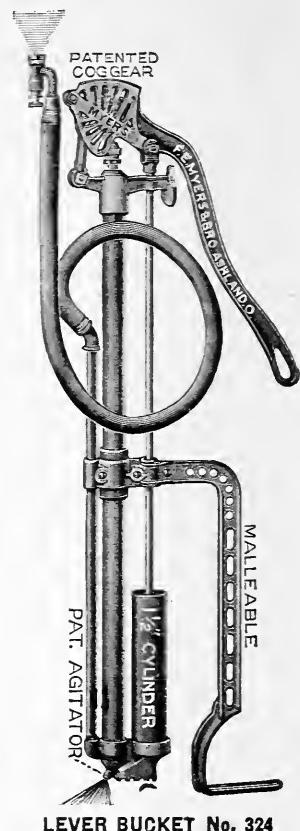
This is provided with a large air chamber. Plunger works straight up and down without lever. Used for bucket only. Has agitator and equipped with hose and Imperial combination Price..... \$5.00.

Paragon Sprayers

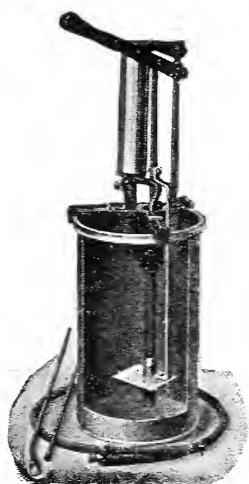
THESE SPRAYERS have self cleaning strainers and cannot clog the nozzle when spraying, as the agitator passes over it with each stroke of the pump dislodging any particles the suction may draw into its surface. They are the Sprayers adapted for spraying insecticides, whitewashing or applying cold water paint.

Every Paragon Sprayer is fully guaranteed and if any part proves defective, same will be immediately replaced free of charge.

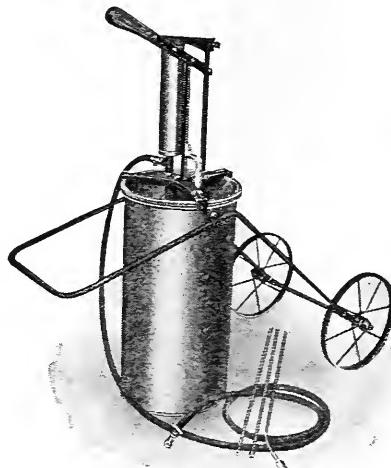
150 lbs. pressure is easily obtained with this Sprayer.



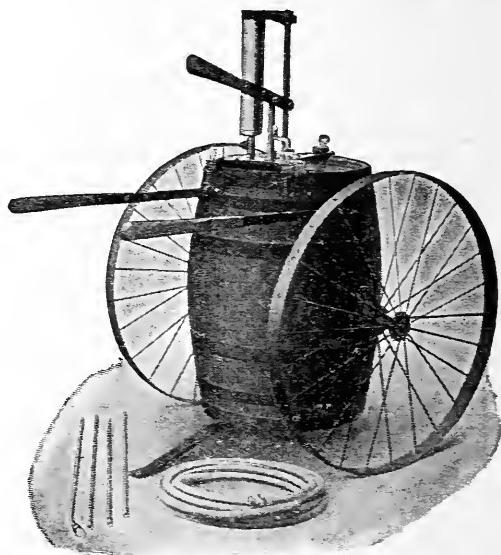
LEVER BUCKET No. 324



No. 1. PARAGON SPRAYER



No. 3. PARAGON SPRAYER



No. 4. PARAGON SPRAYER—MOUNTED

No. "0" Capacity 3 gallons — Equipment 4 ft. of 6-ply hose, 3 ft. spray pipe, 2 spray nozzles. \$15.00.

No. "1" Capacity 6 gallons.—Equipment 5 ft. 6-ply hose, 5 ft. spray pipe, 2 nozzles. Net price, \$20.00.

No. "3" Capacity 12 gallons.—Equipment 10 ft. 6-ply hose, 7½ ft. spray pipe, 2 spray nozzles. Net price complete, \$30.00. Without truck, \$26.00.

No. "4" Capacity 28 gallons.—Equipment 20 ft. 6-ply hose, 10 ft. spray pipe, 2 spray nozzles, net price complete with barrel, \$44.00. Not mounted on wheels, price, \$34.00.

No. "5" Capacity 50 gallons—Equipment 25 ft. 6-ply hose, 10 ft. spray pipe, one 3-way spray nozzle, 1 single spray nozzle. This Sprayer has a solid cast brass pump and large air chamber mounted in a strong barrel but not on wheels.

It is positively the very best of hand-power Sprayers made for extensive tree spraying. Net price, \$50.00.
WE WILL MAIL ON REQUEST an illustrated Circular giving further information on Paragon Sprayers.

Dry Powder Guns and Dusters

The Feeny Dust Gun is a mechanically perfect apparatus which emits powder in clouds of right consistency from any position and in any direction, downward, upward or horizontal. Entirely different principles of mechanics have been brought into play than have been used heretofore on such outfits. Price, \$2.25.



FEENY DUST GUN

Genuine Philadelphia Lawn Mowers

The Philadelphia Lawn Mower has stood the test for years, and is acknowledged to be one of the best and a strictly **High Grade Mower**.

Style K—5 blades, 10-in. wheel, 6½-in. cylinder. Single Pinion, geared on both sides. The greatest diameter of cylinder with five blades, insures fine cut, and with its large driving wheels, is light running. 14-in., \$18.00; 16-in., \$19.00; 18-in., \$20.50; 20-in., \$22.00.

Style C—4 blades, 8½-in. wheel, 5¼-in. cylinder. This style medium high wheel is to supply a demand for a mower which has real merits, and is light running, durable and easy to handle. 14-in., \$13.50; 16-in., \$15.50; 18-in., \$16.90; 20-in., \$18.25.

Style M—3 blades, 7-in. wheel, 5¼-in. solid cylinder, with blades bolted on. This is the original Philadelphia 1870 pattern mower, and for general purposes is very popular, adapted for rough as well as smooth lawns. 14-in., \$13.25; 16-in., \$15.25; 18-in., \$16.75; 20-in., \$18.00.

Style E—Width of cut, 21 inches. Has high 10-in. driving wheel, 4 blades, cylinder 6½ inches. Unlike all other mowers, the driving wheel and cylinder can be removed, leaving a solid frame. 21-in., \$25.00.

EVEN-SPREAD LAWN SPRINKLER

Throws an equal amount on each square foot within the immense circle, **Just Like Rain**; elevates it only three to four feet above ground, preventing the wind blowing it to one side, and yet does not cut it into a fine mist to be lost in the air. Price, \$2.25 each.

Horticultural Tools and Sundries

BLUE GRASS STRIPPER	is well made and nicely painted. A man can strip 20 bushels of seed per day	Each
	with it; weighs 4 pounds.	\$2.00
DIBBLES for transplanting plants		.50
GRASS TRIMMER —Fisk and Jay		1.25
GRASS CATCHERS —12 and 14-inch		1.50
" " 16 and 18-inch		1.65
LAWN SWEEPERS, PENN.	35.00	
HOES —Standard Socket Garden	.90	
" Ladies' Light Garden	.50	
" Onion, with two prongs	.60	
RAKES —Steel Garden, 12 teeth	.90	
" " 14 "	1.00	
" Lawn, Wire 30 "	.75	
" Wooden 20 "	.75	
TROWELS (Ordinary Garden) —6-inch, each	.20	
SOLID STEEL , each	.40	
FORGED STEEL , very strong	.80	
TRANSPLANTING TROWELS .—Can be used either as a transplanter, dibble or weed digger; blade being narrow and deeply curved	.40	
FLOWER GARDEN SETS . English pattern, 1-5 tooth rake, 1 trowel, 1 hoe. All 16-inch handles. Per set	1.25	
Hedge Shears	3.00	
Rhodes long handle pruning shears 20 in., 24 in. and 30 inch. Each	3.50	
One Hand pruning shears	\$1.25 and 2.00	

PULL EASY CULTIVATORS.

4 tooth short handle	.60
4 " long handle	.75
9 " long handle	1.50
Sickles	50c and \$1.25

EXCELSIOR HAND WEEDE

Excellent for use in flower gardens, price .20c.



MOLE TRAP.....\$1.00

"ANYWEIGHT" LAWN ROLLERS.			
No. 1420.....14 in. diameter.....20 in. long.....	46 lbs. empty.....	149 lbs. filled....	\$16.00
" 1824.....18 " " 23 " "	76 " "	274 " "	18.00
" 2424.....23 " " 23 " "	94 " "	418 " "	21.00

Magic Weeders

MAGIC WEEDE—One of the best hand tools, saving time and labor. It is made in different styles as shown by the cuts and can be used both for cutting and digging out weeds, as well as for making rows, if desired.

Each
No. 0. 3 tine.....\$0.20
No. 1. 4 "25
No. 2. 4 " with hoe..... .35
No. 2V. 4 " point..... .35

SPADING FORKS.....1.90

SPADES, D handle.....1.75
" Steel.....2.00

LAWN ROLLERS.....

Price "BEST EVER" FLOWER BOXES Quality

This box embodies attractive appearance, general utility and durability.

The heavy roll edge adds greatly to the appearance, a device inside the box permits of the application of water to the plants without the slightest degree of untidiness which frequently arises from watering the plants by sprinkling, and the good quality japan over galvanized metal warrants long life.

All boxes 7½ inches wide at bottom and 6½ inches deep.

18-Inch.....\$1.10 each	36-Inch.....\$2.00 each
24-Inch.....1.25 each	48-Inch.....2.85 each
30-Inch.....1.60 each	

Plant Tubs

An excellent new tub, cheap, neat and durable. Made from ¾ inch Cypress.

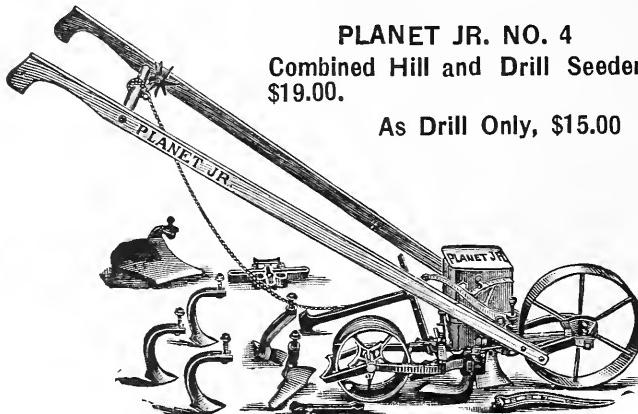
No. 4. 9 inches diameter	9 inches depth.....	\$1.00
No. 5. 10 " " 9 " "	" "	1.20
No. 7. 12 " " 11 " "	" "	1.60
No. 9. 14 " " 13 " "	" "	2.30
No. 11. 16 " " 15 " "	" "	2.85
No. 13. 18 " " 17 " "	" "	3.75
No. 14. 19 " " 18 " "	" "	4.25

Handles 20c per pair extra.

All Prices Subject to Market Changes.

PLANET JR. TOOLS

Complete illustrated catalogue on request.
Our net prices are less than Planet Jr. Catalogue Prices.

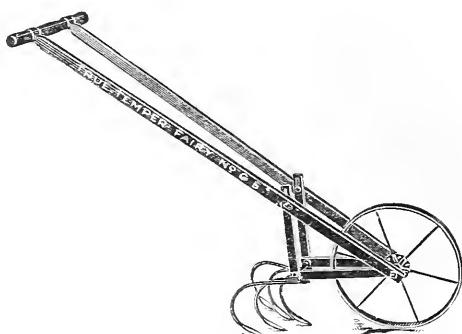


PLANET JR. NO. 4
Combined Hill and Drill Seeder
\$19.00.

As Drill Only, \$15.00

PLANET JR. WHEEL HOES.

- No. 11. DOUBLE WHEEL HOE.**—2 6-inch hoes, 2 $4\frac{1}{2}$ -inch hoes, 4 cultivating teeth, 2 plows, 4 rakes, 2 leaf lifters. Our net price.....\$15.50
- No. 12. DOUBLE WHEEL HOE.**—Has 8 cultivating teeth and weeding tools. Our net price complete..\$12.00
- No. 13. DOUBLE WHEEL HOE.**—2 weeding hoes, only. Our net price.....\$8.50
- No. 16. SINGLE WHEEL HOE.**—Has 7 cultivating teeth, a garden plow. Our net price.....\$9.75
- No. 17. SINGLE WHEEL HOE.**—Has 6 weeding and cultivating teeth. Our net price.....\$8.25
- No. 17½. SINGLE WHEEL HOE AND CULTIVATOR.** teeth and leaf lifter. Our net price.....\$7.10
- FIRE FLY GARDEN PLOW.**—A tool for small gardens. It will throw a furrow 4 to 6 inches wide. Our net price.....\$4.00
- FARMERS No. 19, SINGLE WHEEL HOE CULTIVATOR AND PLOW.** Our net price.....\$5.75



MAKES HOME GARDENING A DELIGHT.

The **TRUE TEMPER FAIRY** No. G5 costs but a trifle more than an ordinary hoe, and will do ten times the work.

It weeds and cultivates without giving you a lame back—keeps you smiling.

It has a strong steel frame with best selected ash handles easily adjusted for man or boy.

Price.....\$3.00

HILL AND DRILL SEEDERS

No. 4. COMBINED HILL AND DRILL SEEDER, with 2 hoes, 3 cultivating teeth and plow, as shown. Hopper holds 3 pints. Our net price complete....\$19.00 As a seeder without tools, our net price..... 15.00

No. 3. HILL AND DRILL SEEDER—without cultivating tools, hopper holds 3 quarts, our net price..\$18.00

No. 25. HILL AND DRILL SEEDER COMBINED, DOUBLE WHEEL HOE, CULTIVATOR AND PLOW. Has 8 cultivating tools. Our net price complete..\$22.50

No. 11 Planet Jr. Double Wheel Hoe, Cultivator, Plow and Rake Complete as shown with 14 Tools, \$15.50

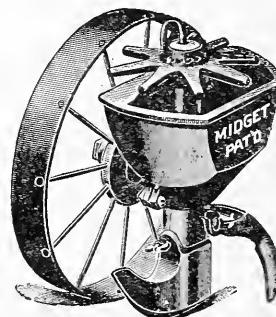
No. 12 has no Rakes and only 2 Hoes, Price, \$12.00.



Steel Frames



The **MIDGET SEEDER** will pay for itself in a short time, because it saves seed by sowing accurately. Sowing by hand wastes seed.



It is very easy to operate and drills almost any kind of garden seed from the smallest up to peas and beans.

The **MIDGET** opens the furrow, sows the seed and covers up, all in one operation.

Price.....\$5.00

Stock and Poultry Supplies

Buttermilk Starting Feed

AN UNEQUALED FOOD FOR BABY CHICKS.

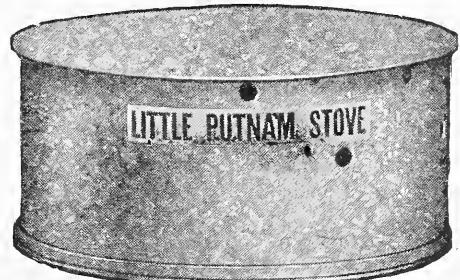
Gives the young chicks all the food elements required by them to develop properly and in the correct proportions. No guess work. Can be fed either wet or dry. Chicks will mature rapidly and in the best condition with no losses. $2\frac{1}{2}$ lbs., 25c; 5 lbs., 45c; 10 lbs., 75c; 25 lbs., \$1.50; 100 lbs., \$5.50.

Little Putnam Stove

A little Putnam Stove is nine inches in diameter and four inches high.

The combustion is perfect, doubling the heat value of the oil. The oil tank holds three pints and **burns three to four weeks without refilling or any other attention.** The wick never needs trimming.

Each \$2.00



Patented Dec. 11, 1917.

DR. HESS POULTRY AND STOCK REMEDIES



Poultry Pan-A-Cea—
1½ lbs., 25c; 5 lbs.,
75c; 12 lbs., \$1.50.

Roup Remedy—25c

Instant Louse Killer—
25c per pkg.

White Diarrhoea Cure
25c and 50c per pkg.

Dip and Disinfectant—
Pt. bottle, 50c; qt.,
75c; ½ gal., \$1.00
1 gal., \$1.75.

Stock Tonic—25c and
50c per pkg.

POULTRY FOOD

A perfectly balanced ration of grain without grit, shell or other adulterants. Current prices.

CHICK FEED

A perfectly balanced ration of grain and seeds for young chicks. Current prices.

Mica Grits. Coarse and fine. 4 lbs. 10c; 100 lbs. \$1.50.

Oyster Shell. 4 lbs. 10c; 100 lbs. \$1.40.

Charcoal fine or coarse. Lb. 10c; 3 lbs. 25c.

Meat Scraps. Protein 50%. 3 lbs. 25c; 100 lbs. \$5.00.

BUTTERMILK EGG MASH

Protein 20%; Fat 4½%.

5 lbs.... 25c. 10 lbs.... 45c. 100 lbs.... \$3.50.

CELLULOID LEG BANDS

All colors and sizes. 15c doz. 75c 100.

CHAMPION LEG BANDS

In sets, numbers 1 to 12, 15c set.

In sets, numbers 1 to 25 30c set.

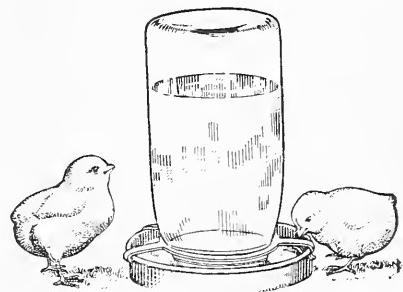
In sets, numbers 1 to 100 90c set.

MOES DRY MASH HOPPER

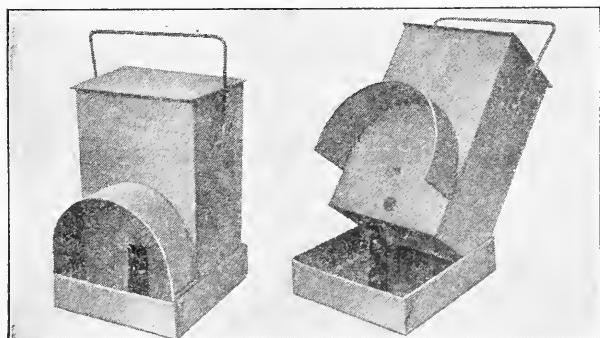
8-in., \$1.50. 12-in., \$2.00. 24-in., \$2.80

AUTOMATIC FOUNTAIN AND CHICKEN FEEDER

This appliance for chicks, feeds water, grain, grit, etc., automatically. Is very easy to fill and operate. Just lift trigger which releases pan, clip remaining on jar, leaving pan without any obstruction, affording easy cleaning.



This is an absolutely sanitary fountain made to fit any half-gallon, quart or pint Mason jar. We do not furnish jars. 15c each.



SQUARE BOTTOM DRINKING FOUNTAIN

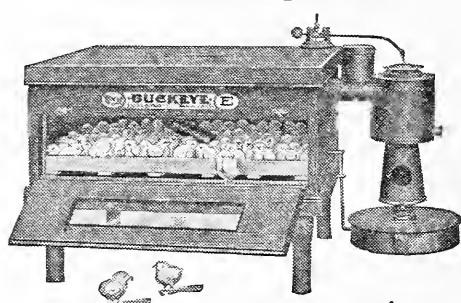
Made of heavy Galvanized Iron. Easy to clean. Prevents disease. Prices: 2 qts., 90c; 1 gal., \$1.15; 2 gal., \$1.35

Baby Chicks

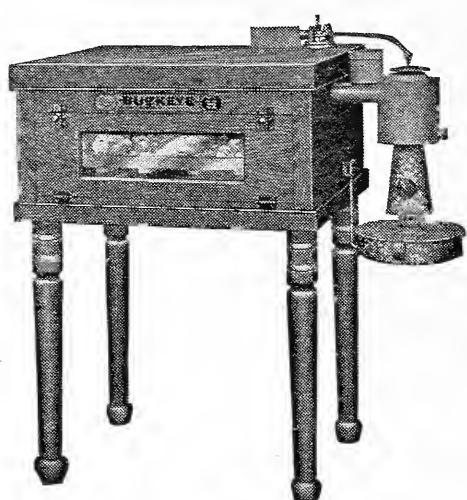
Beginning February 25th, we will have on sale at our store, 228-230-232 East Fourth Street, day old baby chicks, Rhode Island Reds, Barred Rocks and Leghorns. Can also supply other breeds on special order. These chicks for sale at store only.

BUCKEYE INCUBATORS

No. 14

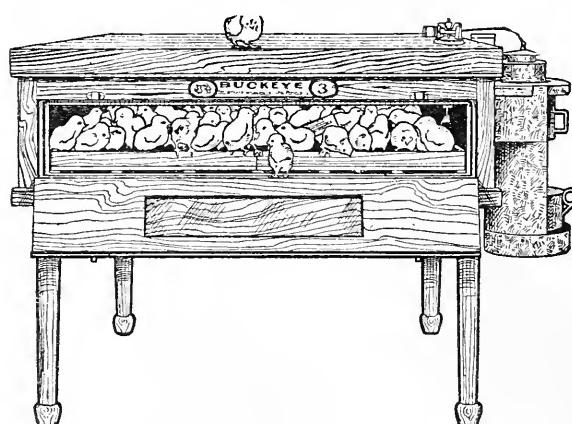


No. 16



No. 14 Capacity 65 Eggs	\$16.50
No. 16 Capacity 120 Eggs	27.50
No. 17 Capacity 210 Eggs	36.75

Standard



No. 1 Capacity 120 Eggs.....	\$37.50
No. 2 Capacity 175 Eggs.....	44.50
No. 3 Capacity 250 Eggs.....	57.75
No. 4 Capacity 350 Eggs.....	68.00
No. 5 Capacity 600 Eggs.....	107.00

"Standard" Approved by
THE NATIONAL BOARD OF INSURANCE
UNDERWRITERS

Why the Buckeye Succeeds

The unprecedented success which has followed the Buckeye for twenty-five years is primarily due to the invention of the Buckeye hot-water system. Without this wonderful system of **hot water heating**, that perfect balance between the temperature, moisture and ventilation, which is so necessary to successful incubation, would be a physical impossibility. Our ability to heat the egg chamber **without cooking all the moisture out of the air** is not only responsible for the abundant supply of natural moisture, but at the same time the soft radiated heat from the **hot water tank** provides an absolutely uniform temperature, and permits the perfect ventilation of the egg chamber at the same time.

FUMES FROM LAMP CANNOT ENTER A BUCKEYE

Too much emphasis cannot be attached to the importance of keeping impure gases and fumes out of an incubator. Instead of passing the hot air fumes through the incubator, with a likelihood of leakage in the conductor at any time, we heat the water on the outside—sending it circulating around the egg chamber—and keep all the fumes from the lamp on the outside. It takes but a very small portion of lamp fumes to kill the developing chicks, and by circulating **hot water** through the egg chamber instead of hot air, we entirely eliminate all possibility of damage to the eggs.

Guarantee

The Buckeye is **GUARANTEED** to hatch **MORE CHICKS** and **STRONGER CHICKS** than any other incubator.

It is further guaranteed:

To require no artificial moisture. To operate satisfactorily in any temperature down to freezing, and to require no attention to the regulation from the time a hatch is started until it is finished.

The perfect construction of all its mechanical parts is also guaranteed, and any incubator or part thereof that does not fulfil our guarantee in every particular will be replaced without question any time within forty days.

(Signed) **THE BUCKEYE INCUBATOR CO.**

We can supply all parts for Buckeye Incubators and Brooders.

Oil lamp complete.....	\$1.50
Gas Burner.....	2.00
Thermometers.....	.75

ASK FOR A BIG BUCKEYE CATALOGUE.

THE "STANDARD"

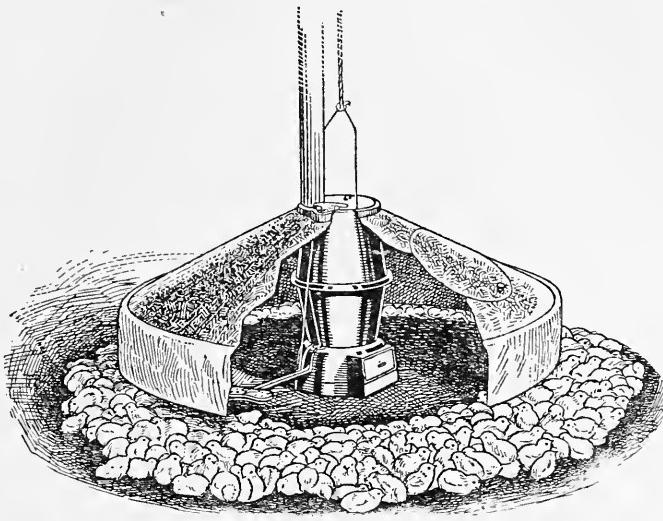
Colony Brooder

No. 18
Broods
Up to 500
Chicks
\$21.50

Self Feeding .
Self Regulating

No. 19
Broods
Up to 1000
Chicks
\$26.50

Saves Labor
Everlasting



Showing a Standard Colony Brooder in Operation with 1,050 Chicks

The Standard Brooder Is Without Doubt the Most Successful Brooding Device Ever Invented

This Brooder has actually revolutionized the whole poultry industry by helping the breeders to raise a much larger percentage of their young stock with just about one-fourth of the labor.

For the big breeder it has been a veritable godsend, and in a large number of cases has turned money losing propositions into highly profitable plants, while for the smaller breeder it has been just as valuable through its ability to bring the young stock to quicker maturity and saving many valuable fowl that, under ordinary conditions, never would have survived.

It is the very simplicity of the Standard that makes it the best brooder on earth. With only a few simple parts the Standard accomplishes with never-failing certainty those things in which the more complicated devices fail.

Buckeye "Blue-Flame" Brooders (Wickless) A High Power Oil Burning Brooder

That operates on the same Successful Principle as the "STANDARD" Coal-Burning Brooder.

NO COMPLICATED LEVERS, VALVES OR THERMOSTATS

Equipped with a Blue-Flame Burner that is absolutely Smokeless, Odorless and Noiseless.

No. 9, Capacity 75 Chicks, \$ 9.75.

No. 11, Capacity 350 Chicks, \$20.00.

No. 10, Capacity 200 Chicks, 17.50.

No. 12, Capacity 500 Chicks, 22.50.

Buckeye Portable Brooder

**The Oil Burning Brooder With All the Desirable Features
of the Modern Coal Burner**

Guaranteed to furnish an abundance of heat in any temperature down to freezing.

Guaranteed to be absolutely free from all gases or odors and to provide a circulation of pure, fresh air every minute of the day.

Sold on Thirty Days' Approval—and You Write Your Own Money-Back Guarantee.

No. 20
Capacity 60 Chicks
\$11.75

No. 21
Capacity 100 Chicks
\$15.50

No. 22
Capacity 150 Chicks
\$19.00

SUGGESTIONS BY THE MONTH

February: See that your garden tools are in working order, then buy your seeds. If these things are attended to in February you will avoid that rush when the time comes and will be ready to take advantage of the first good day for outdoor work.

March: First week—start your cold frame or seed boxes. We recommend Bacteriarized Humus for plant beds. This makes the ideal soil for growing strong healthy plants. (See page 88.) Sow Tomato, Cabbage, Cauliflower, Pepper and Egg Plant Seeds. After these seeds are planted order your fertilizer (we recommend sheep manure). To grow quality and quantity the plants must be fed. If well rotted stable manure is used apply at rate of 50 pounds to each 100 sq. ft.; if sheep manure, 5 pounds to 100 sq. ft.

About the 20th many of the seedlings will be ready to transplant. All plants should be gradually hardened by more exposure to the cool air each day as weather permits. Plant Onion sets. The end of the month usually finds the ground ready for preliminary work. Spread the fertilizer or manure but do not plow or spade the ground if it is still sticky. If the ground is ready to work, plow or spade 6 inches deep or more, turning top soil down to completely cover all manure. If the ground is sour or acid, apply lime at rate of 3 pounds to each 100 sq. ft. You will find it pays to plant everything in the longest possible rows; small beds waste ground and increase the time of cultivating, especially if a wheel hoe is used. Do not plant seeds too deep. Lettuce, Onion, Radish, Endive, Carrots, etc., not over $\frac{1}{2}$ inch. Melons and Cucumbers 1 inch. Peas, Beans and Corn 2 inches.

Early April: Set out Cabbage and Cauliflower, plant Peas, Beets, Carrots, Lettuce, Parsnip, Parsley, Salsify and Radish.

Middle of April: Plant Green Beans. Start shallow cultivation where seedlings are showing.

By **April 25th** all rows that have made a good start should be thinned out, as no vegetable will do well if crowded. See that everything is well cultivated. Do not allow the ground to crust around the plants.

May 1st: Plant Cucumbers, Sweet Corn, Squash. Set out Tomato, Egg and Pepper plants. Get your poles or wires ready for tall Lima Beans.

May 10th to 15th: Plant Pole and Bush Limas, Wax Snap Beans, Cos Lettuce and Melons. May is the time to put in the real work as it is the month that makes or mars the season's results.

Thin out your rows, top dress all leaf crops (Cabbage, Cauliflower, Lettuce, etc.) with nitrate of soda in solution 2 ounces to 1 gallon of water.

Water the garden thoroughly in the evening during dry spells. Give plants a good drenching as a little water when the ground is dry has a tendency to bring the roots to the surface. Watch all plants for aphis, plant lice and leaf eating bugs and be prepared to get after them at their first appearance by having on hand "Black Leaf Forty" Arsenate of Lead, Bordeaux (see page 88).

Keep the weeds down.

Keep the surface of the ground loose.

Above are two essentials for a successful garden.

This means keeping at it all summer, but if attention is given to the garden regularly (a little time each evening) one will find it more of a pleasure than a task.

Never allow a crust to form. This will happen after any hard rain. Do not attempt to cultivate while the ground is muddy—wait until the crust begins to form.

Do not cultivate too deep—one inch is enough to provide a thin layer of fine soil. This will prevent the moisture from rising to the surface where the wind and sun would evaporate it.

As each row is used, same should be dug up at once and other seed sown. In this way the garden can be kept bearing up to frost. Follow your early vegetables with Beets, Summer Radish, Turnip, Spinach, Endive, Chicory, Corn Salad, Kohl Rabi, etc. Sugar Corn can be planted up to July 20th.

ORDER SHEET
Field Seeds, Bulbs, Plants, Trees
AND OTHER ARTICLES

THE J. CHAS. McCULLOUGH SEED CO.

228-230-232 East Fourth St., Near Sycamore. **Cincinnati, O.**

Date _____

Amount Enclosed _____

Name _____

Post Office _____ **R. F. D.** _____

Shipping Depot _____ **Railroad** _____

County _____ **State** _____

Send order by _____ **on or about** _____

State whether Mail, Express or Freight

~~We give no warranty, expressed or implied, as to description, quality, productiveness or any other matter of any seeds, bulbs or plants we send out and we will not be in any way responsible for the crop.~~

THE J. CHAS. McCULLOUGH SEED CO.

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Wherever the Ideal is used, smooth, velvety lawns are maintained at a minimum expense.

Actual use on many of the finest, largest and best kept lawns in the country has shown that the Ideal will cut from four to five acres of grass per day; doing the work of five or six hard-working men with hand mowers.

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While distinctly a mower for small areas, it can be depended upon to perform faithfully and satisfactorily.

The Ideal Junior is built on the same general design as the regular 30-inch Ideal.

We recommend the machines highly for all those who have large areas of grass to be cut and kept in condition. Call upon us for demonstration or write for special literature.

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Distributors

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Does the work of

five hand mowers